SHARP®

32″DISPLAY   **AVC SYSTEM**
LC-32G2X/ TU-32GAX
37″DISPLAY   **AVC SYSTEM**
LC-37G2X/ TU-37GAX

LCD COLOUR TELEVISION

OPERATION MANUAL

AQUOS

VIRTUAL

DOLBY
SURROUND
PRO LOGIC II

1bit
Technology

PC
Card

LC-32G2X LC-37G2X
TU-32GAX TU-37GAX

LCD COLOUR TELEVISION

OPERATION MANUAL

Contents

Contents

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Precautions carefully before using this product.

Important Safety Precautions

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD colour TV product, please read the following precautions carefully before using the product.

1. Read instructions—All operating instructions must be read and understood before the product is operated.

2. Keep this manual in a safe place—These safety and operating instructions must be kept in a safe place for future reference.

3. Observe warnings—All warnings on the product and in the instructions must be observed closely.

4. Follow instructions—All operating instructions must be followed.

5. Attachments—Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.

6. Power source—This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.

7. AC cord protection—The AC cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.

8. Overloading—Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.

9. Entering of objects and liquids—Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.

10. Servicing—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.

11. Repair—If any of the following conditions occurs, unplug the AC cord from the AC outlet, and request a qualified service person to perform repairs.
    a. When the AC cord or plug is damaged.
    b. When a liquid was spilled on the product or when objects have fallen into the product.
    c. When the product has been exposed to rain or water.
    d. When the product does not operate properly as described in the operating instructions.
       Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
    e. When the product has been dropped or damaged.
    f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.

12. Replacement parts—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.

13. Safety checks—Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.

14. Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

Important Safety Precautions
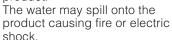
- Cleaning—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
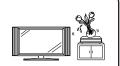
- Water and moisture—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.
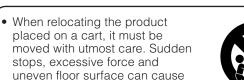
- Do not place vases or any other water-filled containers on this product.
  The water may spill onto the product causing fire or electric shock.
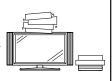
- Stand—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.

- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.

- Ventilation—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.

- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken be careful not to be injured by broken glass.

- Heat sources—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).

- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.

- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.

The LCD panel is a very high technology product with 3,147,264 thin film transistors, giving you fine picture details.
Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red.
This is within product specifications and does not constitute a fault.

Precautions when transporting the Display
When transporting the Display, never carry it by holding onto the speakers. Be sure to always carry the Display by two people holding it with two hands—one hand on each side of the display.

Supplied accessories

Make sure the following accessories are provided with the product.
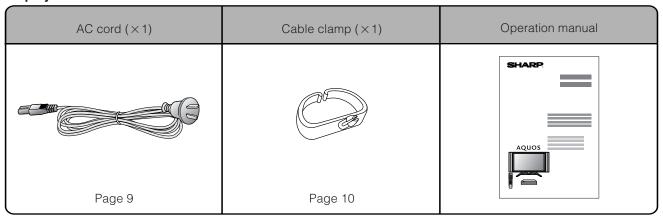
AVC System: TU-32GAX/TU-37GAX

Remote control unit (×1)	"AAA" size battery (×2)	System cable (×1)
Page 14	Page 14	Page 9
Stand unit (for AVC System) (×1)	AC cord (×1)	Antenna cable (×1)
Stand (×1) Stand cushion (×4) Stand spacer (×4) Stand screw (×2) Page 11	Page 9	Page 15

Supplied accessories
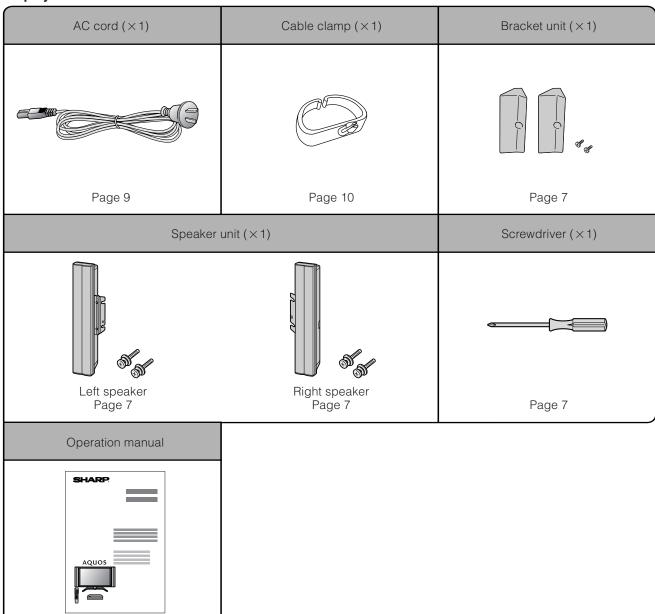
Make sure the following accessories are provided with the product.

Display: LC-32G2X

AC cord (×1)	Cable clamp (×1)	Operation manual
Page 9	Page 10	

• Speakers are attached when shipping LC-32G2X.

Display: LC-37G2X

AC cord (×1)	Cable clamp (×1)	Bracket unit (×1)
Page 9	Page 10	Page 7

Speaker unit (×1)		Screwdriver (×1)
Left speaker Page 7	Right speaker Page 7	Page 7

Operation manual

Preparation

Attaching speakers
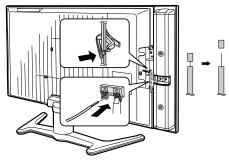
LC-37G2X

1

Peel off the tape holding the ends of the cables, and move cables towards behind the display.

2

Hook the ◯ hole of the speaker to the screw of the Display.
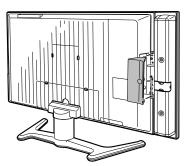
3
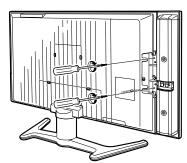
Turn the speaker to the front of the Display (direction of the arrow) and fit it to the screw hole.

4

Fasten the screws.

5

Fasten the speaker cable with the holder.
• Connect the ends of the cables to the speaker terminals as shown in the illustration.

6

Fix the speaker terminal cover.

7
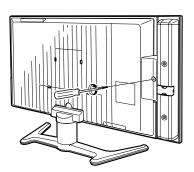
Align the nub of the bracket into the groove and fasten it.

8

Fasten the bracket with the screw.

✎ **NOTE**
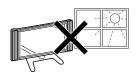
• Perform the same steps for right speaker.
• To remove the speakers, perform the steps in reverse order.

Where to place the System

"System" means the Display and AVC System. First select the location where to place the System.

1 **Selecting the location of the System**

• Select a place with no direct sunlight and good ventilation.

• The Display and the AVC System are connected by the system cable.
  (See page 9 for details.)

If you want to keep a longer distance between the
Display and AVC System, please purchase
the optional system cable AN-07SC2 (about
7 meters). (See page 70.)

System cable

AVC System

Display

2 **Setting the System in place**

Handling the Display

CAUTION

• **When using the TV with the supplied stand attached, do not remove the speaker. Doing so may disturb the balance leading to product damage or personal injury.**

• Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.

• Keep enough space above and behind the Display.

• The TV weighs about 22 kg (LC-32G2X) and 24 kg (LC-37G2X). Move it with two or more people.

• When you move the Display, hold the portion of the Display, not the speaker.

Handling the AVC System

CAUTION
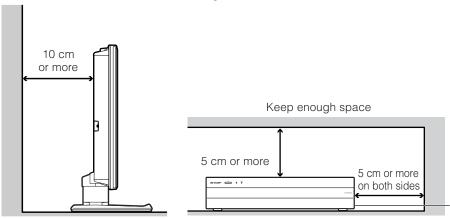
• Do not put a VCR or other device on the AVC System.

• Keep enough space above and on the sides of the AVC System.

• Do not block the ventilation openings on the top and left side, and the exhaust fan on the right side.

• Do not spread a thick cloth beneath the AVC System, or cover it with one, as this can cause overheating and result in malfunction.

CAUTION

Adjust the screen with both hands. Put one hand on the Display and tilt the screen while steadying the stand with your other hand.
You can adjust the screen vertically up to 2 degrees forward or 6 degrees backward, or rotate 10 degrees horizontally.

10 cm or more

Keep enough space

5 cm or more

5 cm or more on both sides
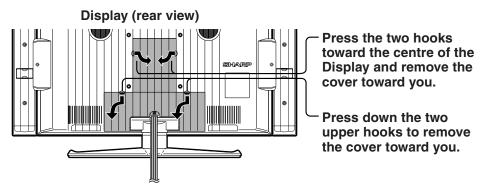
There is an exhaust fan on the right side.
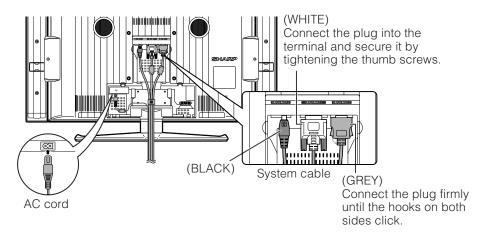
Setting the System

After putting the Display and the AVC System in place, connect the system cables and AC cords. Use the cable clamps for bundling the cables.

1 **Removing the terminal cover**

Display (rear view)

Press the two hooks toward the centre of the Display and remove the cover toward you.

Press down the two upper hooks to remove the cover toward you.
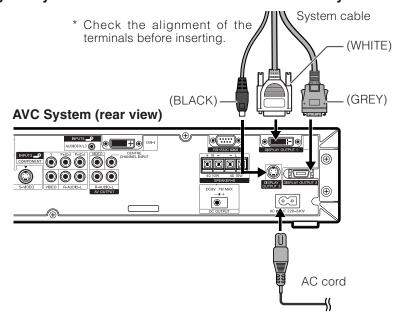
2 **Connecting the system cable and the AC cord to the Display**

(WHITE)
Connect the plug into the terminal and secure it by tightening the thumb screws.

(BLACK)   System cable

(GREY)
Connect the plug firmly until the hooks on both sides click.

AC cord
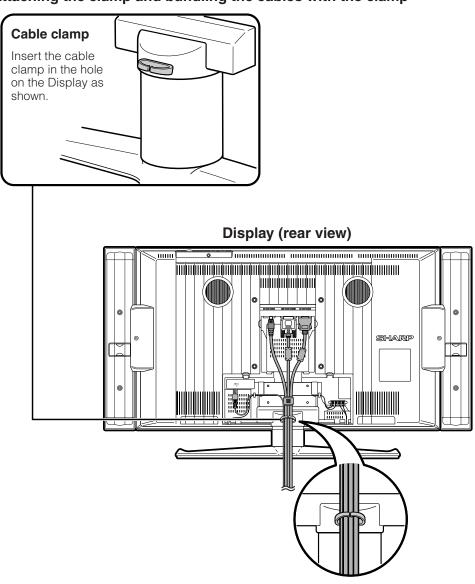
3 **Connecting the system cable and the AC cord to the AVC System**

System cable

* Check the alignment of the terminals before inserting.

(WHITE)

(BLACK)

(GREY)

AVC System (rear view)

INPUT5
AUDIO(R/L)   DV-I
INPUT3   Y   Pb(Cb) Pr(Cr)   VIDEO   CENTRE
COMPONENT   CHANNEL INPUT   RS-232C
                                                             4Ω 10W 4Ω 10W   DISPLAY OUTPUT 1
                    VIDEO R-AUDIO-L R-AUDIO-L   SPEAKER-B   DISPLAY   DISPLAY OUTPUT 2
S-VIDEO   AV OUTPUT   DC9V 7W MAX   OUTPUT 3
                                                            DC OUTPUT   AC INPUT 220-240V

AC cord
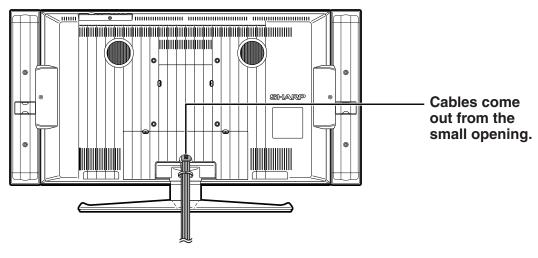
• **TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED.**

4 **Attaching the clamp and bundling the cables with the clamp**

Cable clamp

Insert the cable clamp in the hole on the Display as shown.

Display (rear view)

5 **Closing the terminal cover**

Cables come out from the small opening.
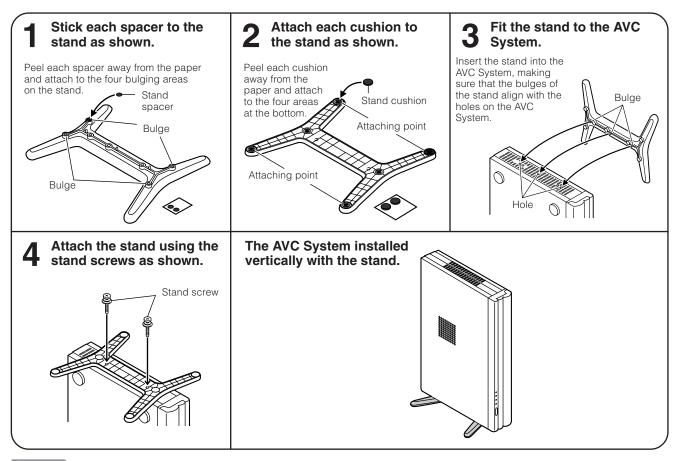
Setting the AVC System with the stand

How to install the AVC System vertically using the stand unit.
• Use the supplied stand unit for installing the AVC System vertically in an upright position.
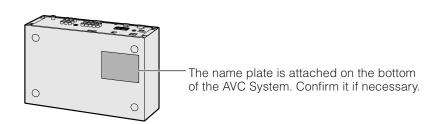
1 Stick each spacer to the stand as shown.

Peel each spacer away from the paper and attach to the four bulging areas on the stand.

Stand spacer

Bulge

Bulge

2 Attach each cushion to the stand as shown.

Peel each cushion away from the paper and attach to the four areas at the bottom.

Stand cushion

Attaching point

Attaching point

3 Fit the stand to the AVC System.

Insert the stand into the AVC System, making sure that the bulges of the stand align with the holes on the AVC System.

Bulge

Hole

4 Attach the stand using the stand screws as shown.

Stand screw

The AVC System installed vertically with the stand.

📎 **NOTE**

• When mounting the AVC System vertically, always use the supplied stand. Be careful not to block vent holes when standing up directly on the floor or a flat surface as this can result in equipment failure.

Bottom view

The name plate is attached on the bottom of the AVC System. Confirm it if necessary.

-11
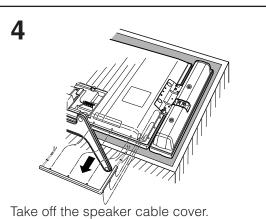
Removing speakers

LC-32G2X

1
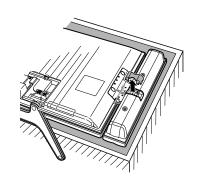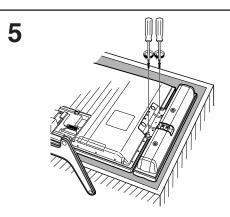
Unfasten the screw used to secure the speaker bracket.
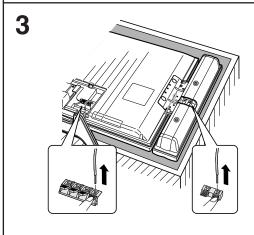
2

Take off the speaker terminal cover.

3

Disconnect the cable from the speaker.

4

Take off the speaker cable cover.

5

Unfasten the screws.

CAUTION

• Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.

NOTE

• Perform the same steps for right speaker.
• To attach the speakers, perform the steps in reverse order.

Preparation

Removing the stand
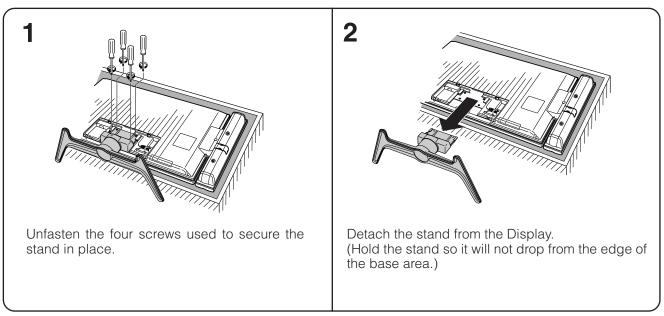
Before detaching (or attaching) stand, unplug the AC cord from the AC input and the system cable from the Display.

CAUTION

• **Do not remove the stand from the Display unless using an optional wall mount bracket to mount it.**

Before attaching/detaching stand
• Before performing work make sure to turn off the System.
• Before performing work spread cushioning over the base area to lay the Display on. This will prevent it from being damaged.

1

Unfasten the four screws used to secure the stand in place.

2

Detach the stand from the Display.
(Hold the stand so it will not drop from the edge of the base area.)

CAUTION

• Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.

NOTE

• To attach the stand, perform the above steps in reverse order.
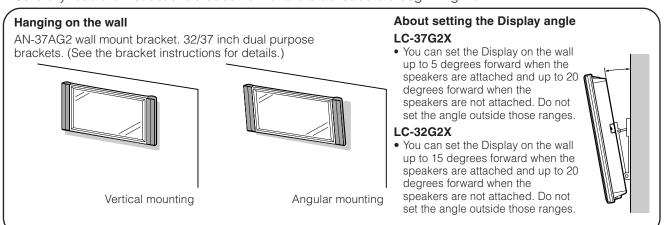
Setting the Display on the wall

CAUTION

• **Installing the Liquid Crystal Television requires special skill that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**

Using an optional bracket to mount the Display
• You can ask a qualified service personnel about using an optional AN-37AG2 bracket to mount the Display to the wall.
• Carefully read the instructions that come with the bracket before beginning work.
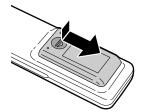
Hanging on the wall

AN-37AG2 wall mount bracket. 32/37 inch dual purpose brackets. (See the bracket instructions for details.)

Vertical mounting   Angular mounting

About setting the Display angle

LC-37G2X
• You can set the Display on the wall up to 5 degrees forward when the speakers are attached and up to 20 degrees forward when the speakers are not attached. Do not set the angle outside those ranges.

LC-32G2X
• You can set the Display on the wall up to 15 degrees forward when the speakers are attached and up to 20 degrees forward when the speakers are not attached. Do not set the angle outside those ranges.

Preparation

Inserting the batteries

Before using the System for the first time, insert two "AAA" size batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AAA" size batteries.
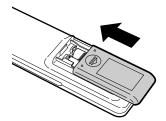
1 Open the battery cover.

2 Insert two supplied "AAA" size batteries.

3 Close the battery cover.

• Place batteries with their terminals corresponding to the (+) and (−) indications in the battery compartment.

⚠ CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.
• Place the batteries with their terminals corresponding to the (+) and (−) indications.
• Do not mix batteries of different types. Different types of batteries have different characteristics.
• Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
• Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
• The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
• If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
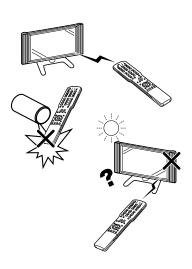
Using the remote control unit

Use the remote control unit by pointing it towards the remote sensor window. Objects between the remote control unit and sensor window may prevent proper operation.

Cautions regarding remote control unit

• Do not expose the remote control unit to shock.
  In addition, do not expose the remote control unit to liquids, and do not place in an area with high humidity.
• Do not install or place the remote control unit under direct sunlight.
  The heat may cause deformation of the unit.
• The remote control unit may not work properly if the remote sensor window of the Display is under direct sunlight or strong lighting. In such case, change the angle of the lighting or Display, or operate the remote control unit closer to the remote sensor window.
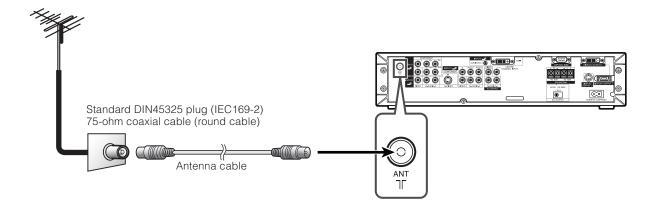
Preparation

Simple operations for watching a TV programme

Basic connection
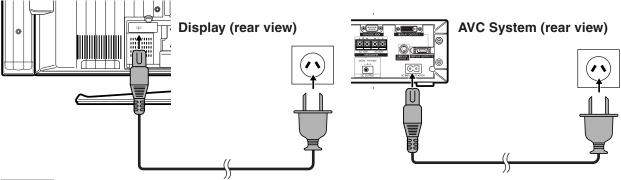
Connecting to an antenna

To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for coaxial cable.

Standard DIN45325 plug (IEC169-2)
75-ohm coaxial cable (round cable)

Antenna cable

ANT

Connecting to the power outlet
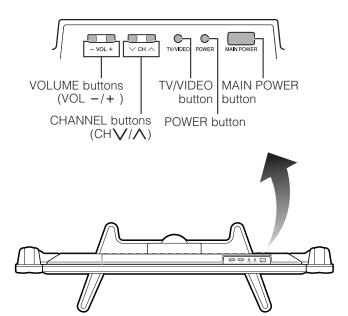
Before connecting the AC cords, make sure to connect the system cable first.

Display (rear view)

AVC System (rear view)
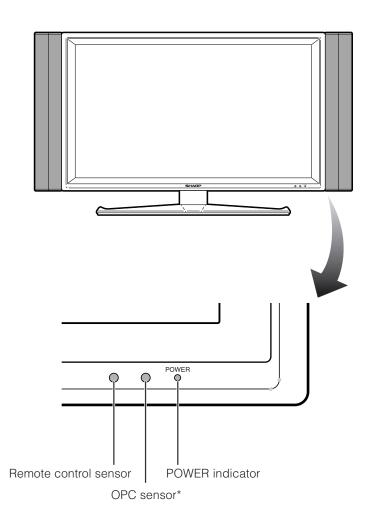
📎 **NOTE**

- Always turn off the main power of Display when connecting the AC cords.
- Disconnect the AC cords from the AC outlet, Display and AVC System if the System will not be used for a long period of time.

Part names

VOLUME buttons
(VOL −/+)

TV/VIDEO   MAIN POWER
button   button

CHANNEL buttons   POWER button
(CH ⋁/⋀)

− VOL +   ⋁ CH ⋀   TV/VIDEO   POWER   MAIN POWER

POWER

Remote control sensor   POWER indicator

OPC sensor*
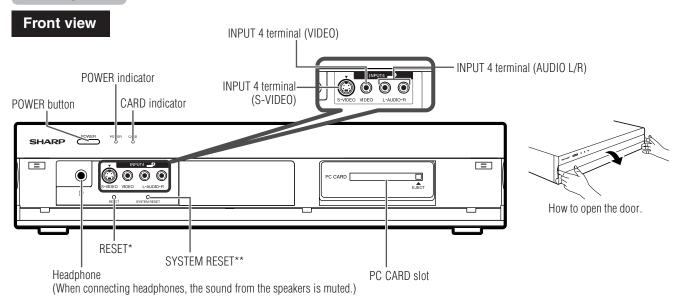
*OPC: Optical Picture Control
(See page 30.)

Part names

AVC System

Front view

INPUT 4 terminal (VIDEO)

POWER indicator

INPUT 4 terminal (AUDIO L/R)

POWER button   CARD indicator

INPUT 4 terminal
(S-VIDEO)

How to open the door.

RESET*

SYSTEM RESET**

Headphone
(When connecting headphones, the sound from the speakers is muted.)

PC CARD slot
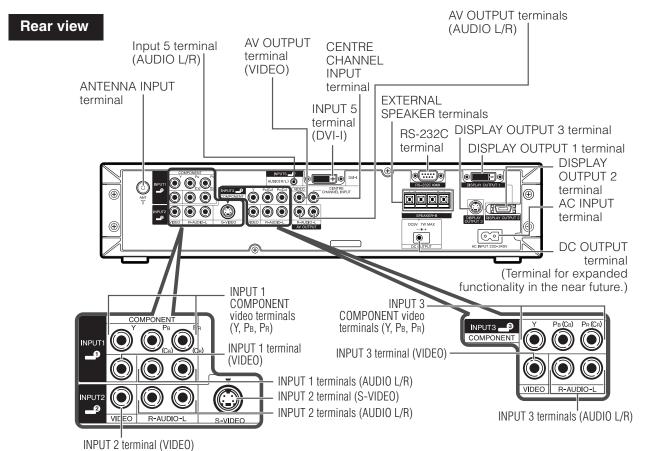
* Press **RESET** if the system cannot return to its original state after performing various operations.
This will reset the System as shown below.
- AV MODE resets to USER.
- TV channel resets to channel 1.
- Dual screen resets to normal.
- Audio setting initialises.
- Dolby Virtual resets to Off.
- Image position is initialised.
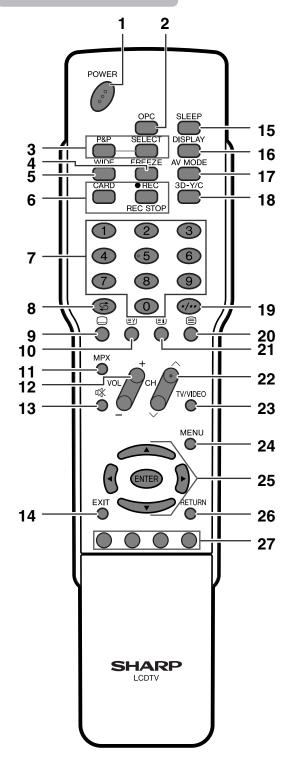
- Still image mode deactivates.
- Teletext mode resets to normal.
- Speaker setting resets to SPEAKER-A.
- Audio Out setting resets to Fixed.
- Centre Channel Input setting resets to Off.
- Audio Only setting resets to Off.

** Press **SYSTEM RESET** if the system does not operate after starting up.

NOTE
- Pressing **RESET** will not work if the System is in standby mode (indicator lights red).
- Pressing **RESET** will not delete channel preset and password. See page 60 for resetting the password when you know it.
See page 74 for initialising to the factory preset values when you forget your password.

Rear view

AV OUTPUT terminals
(AUDIO L/R)

Input 5 terminal
(AUDIO L/R)

AV OUTPUT
terminal
(VIDEO)

CENTRE
CHANNEL
INPUT
terminal

ANTENNA INPUT
terminal

INPUT 5
terminal
(DVI-I)

EXTERNAL
SPEAKER terminals

RS-232C
terminal

DISPLAY OUTPUT 3 terminal

DISPLAY OUTPUT 1 terminal

DISPLAY
OUTPUT 2
terminal

AC INPUT
terminal

DC OUTPUT
terminal
(Terminal for expanded
functionality in the near future.)

INPUT 1
COMPONENT
video terminals
(Y, P$_B$, P$_R$)

INPUT 1 terminal
(VIDEO)

INPUT 1 terminals (AUDIO L/R)

INPUT 2 terminal (S-VIDEO)

INPUT 2 terminals (AUDIO L/R)

INPUT 2 terminal (VIDEO)

INPUT 3
COMPONENT video
terminals (Y, P$_B$, P$_R$)

INPUT 3 terminal (VIDEO)

INPUT 3 terminals (AUDIO L/R)

Remote control unit

SHARP
LCDTV

🔲 **NOTE**

• When using the remote control unit, point it at the Display.

1 POWER (STANDBY/ON)
To switch the power on and off. (See page 19.)
2 OPC
To switch the Optical Picture Control on and off. (See page 30.)
3 P&P
Set the dual picture mode. Press **P&P** again to return to normal view. (See page 62.)
SELECT
To select either screen to be active in Dual screen mode.
4 FREEZE
TV/External input mode: Change the still image mode.
TELETEXT mode: Freeze a multi-page on screen while other pages are automatically updated. Press **FREEZE** again to return to the normal image. (See pages 62 and 64.)
5 WIDE
TV/External input mode: Change the wide image mode. (See pages 55 and 56.)
TELETEXT mode: Set the area of magnification. (full/upper half/lower half) (See page 64.)
6 CARD
Switch to the card mode.
Card mode: Press to turn the Card Control Panel on and off. (See page 38.)
●REC/REC STOP
Still image: Press to capture a still image to a card after freezing the image from TV or external equipment. (See page 39.)
Motion picture: Press to start/stop recording a motion picture to a card from TV or external equipment. (See page 43.)
7 0 – 9
TV/External input mode: Set the channel.
TELETEXT mode: Set the page.
8 ⤸ (Flashback)
Press to return to the previous image in normal viewing mode. (See page 20.)
9 ⊡ (SUBTITLE for TELETEXT)
TV/External input mode: To turn the subtitles on and off. (See page 65.)
10 ⊡? (Reveal hidden for TELETEXT)
TELETEXT mode: Display hidden characters. (See page 64.)
11 MPX
Select the sound multiplex mode. (See page 21.)
12 VOL – /VOL +
Set the volume. (See page 22.)
13 ⊠ (MUTE)
Mute the sound. (See page 22.)
14 EXIT
Turn off the On Screen Display.
15 SLEEP
Set the Sleep timer. (See page 59.)
16 DISPLAY
Display the programme information.
17 AV MODE
Select a video setting: AV MODE (STANDARD, MOVIE, GAME, USER, DYNAMIC), PC MODE (STANDARD, USER) (See page 54.)
18 3D–Y/C
To switch the 3D Y/C function on and off. (See page 33.)
19 -/-- (Digit for channel select)
Change the digits of the selected TV channel. (See page 20.)
20 ⊟ (TELETEXT)
Select the TELETEXT mode. (all TV image, all TEXT image, TV/TEXT image) (See pages 64 and 65.)
21 ⊟ (TOP Overview for TELETEXT)
TELETEXT mode: Display an index page for CEEFAX/FLOF information. TOP Overview for TOP programme. (See page 65.)
22 CH∧/CH∨
TV input mode: Select the channel.
TELETEXT mode: Select the page. (See page 64.)
23 TV/VIDEO (INPUT SOURCE)
Select an input source. (TV, INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5, CARD) (See pages 46, 52 and 62.)
24 MENU
Display the menu screen.
25 ▲/▼/◄/► (Cursor)
Select a desired item on the setting screen.
ENTER
Execute a command.
26 RETURN
MENU mode: Return to the previous menu screen.
27 Colour (RED/GREEN/YELLOW/BLUE)
TELETEXT mode: Select a page. (See page 64.)
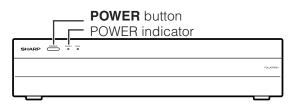
Watching TV

Display

POWER button
MAIN POWER button
POWER indicator

AVC System

POWER button
POWER indicator

POWER indicator

Off	Power off
Red	The System is in standby mode.
Green	The System is on.

🖉 **NOTE**
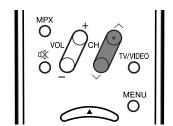
• Check if the system cable is connected properly when display indicator flashes red.

Turning on the power

Make sure that the system cable is connected before turning on the power.

1 Press **MAIN POWER** on the Display.
• POWER indicator (Green): The System is on. (After a few seconds, programme information appears with sound.)
• POWER indicator (Red): The System is in standby. (Go to step 2.)

2 Use any of the methods below to power on. Powering on changes the LED from red to green.
• Press the **POWER** button on the Display.
• Press **POWER** on the AVC System.
• Press **POWER** on the remote control.

Turning off the power

Press **POWER** on the remote control unit.
• The System enters standby mode and the image on the screen disappears.
• Both POWER indicators change from green to red.

Press **MAIN POWER** on the Display.
• The POWER indicator on the Display gradually turns off.
• When the System is turned off by **MAIN POWER** , you cannot turn on the power by pressing **POWER**.

🖉 **NOTE**

• If you are not going to use this System for a long period of time, be sure to remove the AC cords from the power outlet.
• Weak electric power is still consumed even when both **MAIN POWER** and **POWER** are turned off.

Simple button operations for changing channels

You can change channels in several ways.
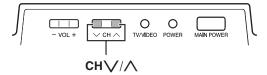
Using CH∧/∨ on the remote control unit

• Press **CH∧** to increase channel number.
• Press **CH∨** to decrease channel number.

📎 **NOTE**
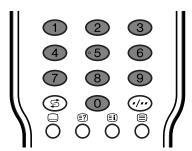
• **CH∨/∧** on the Display operates the same as **CH∨/∧** on the remote control unit.

CH∨/∧

Using 0 – 9 on the remote control unit

Select the channels directly by pressing buttons **0** to **9**.

EXAMPLE 👉

To select a 1-digit channel (e.g. channel 2):
• Press **2**. If "2" is indicated and the picture does not change, press **-/--** to switch over to the 1-digit select mode and press **2** again.
To select a 2-digit channel (e.g. channel 12):
• Press **-/--** to set the 2-digit select mode. Press **1**, followed by **2**.

📎 **NOTE**
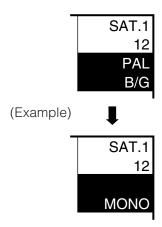
• Complete this procedure within 3 seconds, otherwise the selection will not be made on the 2-digit channel mode.

When viewing Teletext information
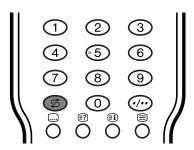
View a page directly which is 3-digit page number from 100 to 899 by pressing buttons **0** to **9**.

Channel display

Channel display changes approximately after 3 seconds as shown below.

(Example)

Using Flashback (⇆) on the remote control unit
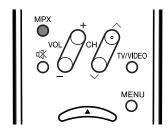
Press ⇆ to switch the currently tuned channel to the previously tuned channel.
Press ⇆ again to switch back to the currently tuned channel.

Press ⇆ to toggle between the currently selected input source and the previously selected one.

Press ⇆ to return to the previous page in TELETEXT mode.

Using MPX on the remote control unit

In the NICAM TV broadcasts
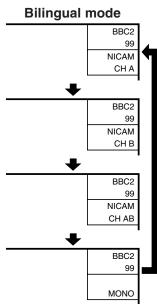
When receiving a stereo signal
Each time you press **MPX**, the mode switches between NICAM STEREO and MONO.

Stereo mode

When receiving a bilingual signal
Each time you press **MPX**, the mode switches among NICAM CH A, NICAM CH B, NICAM CH AB and MONO.

Bilingual mode
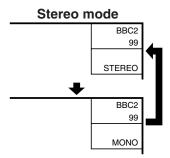
When receiving a monaural signal
Each time you press **MPX**, the mode switches between NICAM MONO and MONO.

Monaural mode

In the TV mode of A2 TV broadcasts
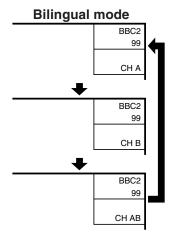
When receiving a stereo signal
Each time you press **MPX**, the mode switches between STEREO and MONO.

Stereo mode
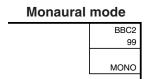
When receiving a bilingual signal
Each time you press **MPX**, the mode switches among CH A, CH B and CH AB.

Bilingual mode

When receiving a monaural signal
When you press **MPX**, "MONO" displays.

Monaural mode
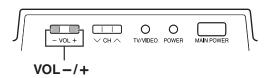
🖎 **NOTE**
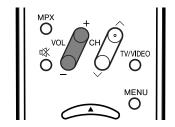
• When no signal is input, the sound mode will display "MONO".
• "BBC2" and "99" are tentative network name and channel.

(GB) **-21**

Simple button operation for changing volume/sound

Changing the volume

You can change the volume on the Display or on the remote control unit.

VOL −/+

- To increase the volume, press **VOL +** .
- To decrease the volume, press **VOL −** .

20

📝 **NOTE**

- "TV", "INPUT1", "INPUT2", "INPUT3", "INPUT4", "INPUT5" and "CARD" modes can each store volume adjustment values separately.

When "Audio Out" is set to "Variable", the indicator on the screen changes as shown below.

20

Audio status
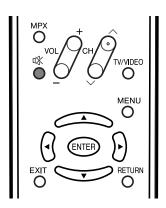
Output device	Audio out	
	Fixed	**Variable**
Speaker	Variable sound	Mute
AV OUTPUT	Constant as specified	Variable sound

📝 **NOTE**

- See page 59 for details on the audio out function.

Using 🔇 on the remote control unit

🔇 mutes the current sound output.

1 Press 🔇.
- "🔇" has been displayed on the screen for 30 minutes, and the sound is silenced.

Mute

📝 **NOTE**
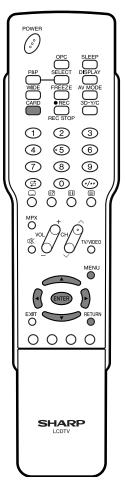
- Within 30 minutes of pressing 🔇, mute can be cancelled by using the methods below.
  - Pressing **VOL −**/**VOL +** or 🔇 can also cancel the mute.
- **Mute will be cancelled after 30 minutes have elapsed. However, the System will not suddenly output a loud sound as the volume level is set to 0 automatically.**

2 Within 30 minutes, Press 🔇 again to cancel the mute.
- Before 30 minutes, the volume level returns to the previous setting.
- After 30 minutes, increase the volume level by pressing **VOL +** .

Basic adjustment settings

Menu operation buttons

Use the following buttons on the remote control to operate the menu.

MENU: Press to open or close the menu screen.

▲/▼/◄/► : Press to select a desired item on the screen or adjust a selected item.

ENTER: Press to go to the next step or complete the setting.
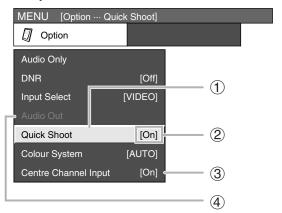
RETURN: Press to return to the previous step.

CARD: Press to open or close the Card mode screen.

On-Screen Display

Example

① Item displayed in yellow
   • This indicates the item currently selected.
   • Press **ENTER** to go to the adjustment screen for this item.

② Item in brackets
   • This indicates the current setting for the item.

③ Item displayed in white
   • This indicates an item can be selected.

④ Item displayed in grey
   • This indicates the item cannot be selected.
     *There are various reasons why items cannot be selected, but the main reasons are as follows:
       1. Nothing is connected to the selected input terminal.
       2. The function is not compatible with the current input signal.

🖉 **NOTE**

• Menu options differ in the selected input modes, but the operating procedures are the same.
• The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.

Basic adjustment settings

<table>
<tr>
<td>

TV/AV input mode menu items

List of TV/AV menu items to help you with operations

</td>
<td>

PC input mode menu items

List of PC menu items to help you with operations

</td>
</tr>
</table>

Basic adjustment settings

Auto installation

You can run auto installation again, even after setting up the preset channels.
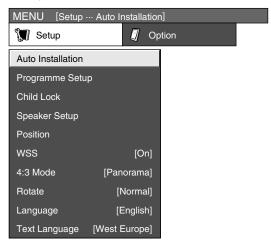
1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Auto Installation", and then press **ENTER**.

MENU [Setup ··· Auto Installation]	
🖥 Setup	📱 Option

Auto Installation	
Programme Setup	
Child Lock	
Speaker Setup	
Position	
WSS	[On]
4:3 Mode	[Panorama]
Rotate	[Normal]
Language	[English]
Text Language	[West Europe]

4 If you already set the password, enter it here.
• See page 60 for setting password.

_ _ _ _

5 Press ◄/► to select "Yes", and then press **ENTER**.

6 Press ▲/▼ to select the desired language listed on the screen, and then press **ENTER**. After this setting, auto search starts with the following order.
　① Programme auto search
　② Auto labelling
　③ Auto sorting
You do not need to do anything during the auto search.

🖉 **NOTE**

• Do not turn off the System while the message "Auto Installation completed" is displayed, for the System is saving the data found while the message is displayed.

Programme setup

You can run the auto installation procedure again at any time, by accessing the Setup menu, then Programme Setup. Channels can be tuned automatically or manually.

Auto search

You can also automatically search and download TV channels by performing the procedure below. This is the same function as programme auto search in auto installation.
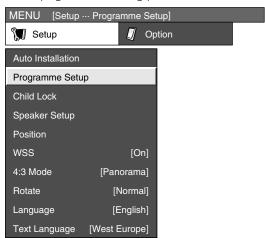
1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Programme Setup", and then press **ENTER**.
If you already set the password, enter it here.
• See page 60 for setting password.

MENU [Setup ··· Programme Setup]	
🖥 Setup	📱 Option

Auto Installation	
Programme Setup	
Child Lock	
Speaker Setup	
Position	
WSS	[On]
4:3 Mode	[Panorama]
Rotate	[Normal]
Language	[English]
Text Language	[West Europe]

4 Press ▲/▼ to select "Auto Search", and then press **ENTER**.

5 Press ◄/► to select "Yes", and then press **ENTER**.
• Auto search starts with the following order.
　① Programme auto search
　② Auto labelling
　③ Auto sorting

🖉 **NOTE**

• Do not turn off the System while the message "Programme set-up completed" is displayed, for the System is saving the data found while the message is displayed.

Basic adjustment settings

| Manual setting for each channel |

You can set some channel items manually. They are Search, Fine (TV frequency), Colour sys., Sound sys., Label (Network name), Skip, Lock (Child Lock) and Booster.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Programme Setup", and then press **ENTER**.
If you already set the password, enter it here.
• See page 60 for setting password.
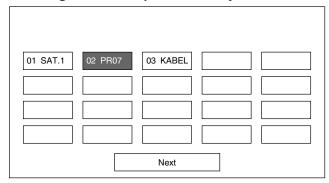
4 Press ▲/▼ to select "Manual Adjust", and then press **ENTER**.

5 Press ◄/► to select "Yes", and then press **ENTER**.

Programme Setup "Manual Adjust" menu

01 SAT.1	02 PR07	03 KABEL		
		Next		

You can select one of the following settings.

① Search (See page 26.)
② Fine (See page 26.)
③ Colour system (See page 27.)
④ Sound system (See page 27.)
⑤ Label (See page 27.)
⑥ Skip (See page 28.)
⑦ Lock (See page 28.)
⑧ Booster (See page 28.)

| Manual setting for each channel (continued) |

Search tuning
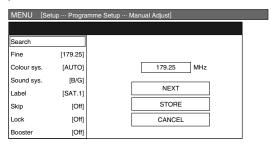
1 Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
• The selected channel information displays.

2 Press ▲/▼ to select "Search", and then press **ENTER**.

MENU [Setup ··· Programme Setup ··· Manual Adjust]

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	179.25 MHz
Sound sys.	[B/G]	
Label	[SAT.1]	NEXT
Skip	[Off]	STORE
Lock	[Off]	CANCEL
Booster	[Off]	

3 Press ▲/▼ to select item and press **ENTER**.
• **NEXT**: Search the next channel.
• **STORE**: Memorise the current display channel.
• **CANCEL**: Returns to the previous screen. (The search result is not stored.)

Fine tuning

1 Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
• The selected channel information displays.
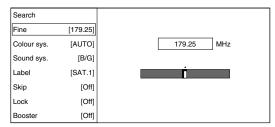
2 Press ▲/▼ to select "Fine", and then press **ENTER**.

3 Press ◄/► to adjust the frequency, and then press **ENTER**.
• Adjust while checking the background picture as a reference.

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	179.25 MHz
Sound sys.	[B/G]	
Label	[SAT.1]	
Skip	[Off]	
Lock	[Off]	
Booster	[Off]	

• Instead of the above, you can also set by directly entering the frequency number of the channel with **0** – **9**.

EXAMPLE 🖝
• 179.25 MHz: Press **1** → **7** → **9** → **2** → **5**.
• 49.25 MHz: Press **4** → **9** → **2** → **5** → **ENTER**.

Basic adjustment settings

Manual setting for each channel (continued)

Colour system

1 Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
• The selected channel information displays.

2 Press ▲/▼ to select "Colour sys.", and then press **ENTER**.
• Receivable colour systems are listed.

Colour system menu

MENU [Setup ··· Programme Setup ··· Manual Adjust]		
Search		
Fine	[179.25]	AUTO
Colour sys.	[AUTO]	PAL
Sound sys.	[B/G]	SECAM
Label	[SAT.1]	NTSC 3.58
Skip	[Off]	NTSC 4.43
Lock	[Off]	PAL-60
Booster	[Off]	

3 Press ▲/▼ to select the optimum colour system, and then press **ENTER**.

Sound system (Broadcasting system)

1 Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
• The selected channel information displays.

2 Press ▲/▼ to select "Sound sys.", and then press **ENTER**.
• Receivable sound systems (Broadcasting systems) are listed.

Sound system menu

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	B/G
Sound sys.	[B/G]	D/K
Label	[SAT.1]	I
Skip	[Off]	M
Lock	[Off]	
Booster	[Off]	

3 Press ▲/▼ to select the optimum sound system, and then press **ENTER**.

✎ **NOTE**

• Check the colour system (see above) if the sound output is not right.

Labelling channels

When a TV channel sends its Network Name, the auto installation detects the information and assigns a name to it. However, you can change individual channel names.

1 Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
• The selected channel information displays.

2 Press ▲/▼ to select "Label", and then press **ENTER**.
• Alphabets and numbers are listed.

Labelling menu

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	
Sound sys.	[B/G]	A B C D E F G H I J CLEAR
Label	[SAT.1]	K L M N O P Q R S T BACK
Skip	[Off]	U V W X Y Z + – . _
Lock	[Off]	0 1 2 3 4 5 6 7 8 9 END
Booster	[Off]	

3 Press ▲/▼/◄/► to select each character of the new name for the channel, and then press **ENTER**.

4 Repeat the above until the name is fully spelt out.
• The name can be 5 characters or less.

Basic adjustment settings

Manual setting for each channel (continued)

Skipping channels

Channels with "Skip" set to "On" are passed over when using **CH∧/∨** even if selected while watching the image from the TV.

1   Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
 • The selected channel information displays.

2   Press ▲/▼ to select "Skip", and then press **ENTER**.
 • Skip menu displays.

Skip menu

MENU	[Setup ⋯ Programme Setup ⋯ Manual Adjust]
Search	
Fine	[179.25]
Colour sys.	[AUTO]
Sound sys.	[B/G]
Label	[SAT.1]
Skip	[Off]
Lock	[Off]
Booster	[Off]

Off

On

3   Press ▲/▼ to set "Skip" to "On", and then press **ENTER**.

Setting the child lock

You can block the viewing of any channel.

1   Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.
 • The selected channel information displays.

**2**   Press ▲/▼ to select "Lock", and then press **ENTER**.
 • Child lock menu displays.

Lock menu

Search	
Fine	[179.25]
Colour sys.	[AUTO]
Sound sys.	[B/G]
Label	[SAT.1]
Skip	[Off]
Lock	[Off]
Booster	[Off]

Off

On

3   Press ▲/▼ to set "Lock" to "On", and then press **ENTER**.

✎ **NOTE**

 • See page 60 for setting password.
 • When "Lock" is set to "On" for a channel, "Child lock has been activated." displays , and the image and sound of the channel is blocked.
 • When pressing **ENTER** while "Child lock has been activated." displays, password input menu will display. Inputting the correct password lifts the child lock temporarily until the power is turned off.

Setting the booster
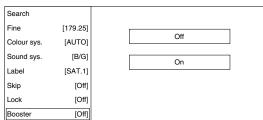
Picture quality may improve in regions with weak signal strength using this function.

1   Press ▲/▼/◄/► to select the channel you want to edit, and then press **ENTER**.

2   Press ▲/▼ to select "Booster", and then press **ENTER**.
 • Booster menu displays.

Booster Menu

Search	
Fine	[179.25]
Colour sys.	[AUTO]
Sound sys.	[B/G]
Label	[SAT.1]
Skip	[Off]
Lock	[Off]
Booster	[Off]

Off

On

3   Press ▲/▼ to set "Booster" to "On", and then press **ENTER**.

✎ **NOTE**

 • If signal strength is strong enough for the selected channel, the effect is negligible and may produce instability. In such case, select "Off".

Basic adjustment settings

Sort

Channel positions can be sorted freely.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Programme Setup", and then press **ENTER**.
If you already set the password, enter it here.
• See page 60 for setting password.

4 Press ▲/▼ to select "Sort", and then press **ENTER**.

5 Press ◄/► to select "Yes", and then press **ENTER**.
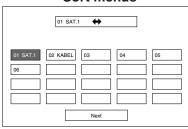
6 Press ▲/▼/◄/► to select the channel you want to move, and then press **ENTER**.
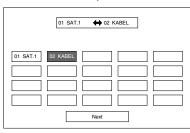
7 Move it to the desired position by pressing ▲/▼/◄/►, and then press **ENTER**.

8 Repeat the steps 6 and 7 until all desired channels are sorted.

Sort menus

01 SAT.1 ↔				
01 SAT.1	02 KABEL	03	04	05
06				
Next				

↓

01 SAT.1 ↔ 02 KABEL				
01 SAT.1	02 KABEL			
Next				

↓

01 KABEL ↔				
01 KABEL	02 SAT.1			
Next				
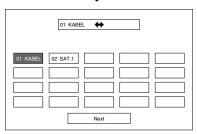
Erase Programme

The individual programme can be erased.

1 Repeat steps 1 to 3 in **Sort**.

2 Press ▲/▼ to select "Erase Programme", and then press **ENTER**.

3 Press ◄/► to select "Yes", and then press **ENTER**.
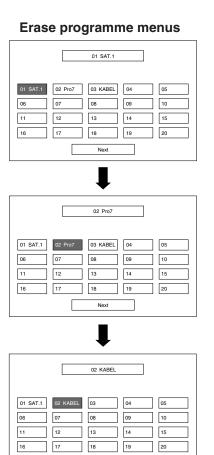
4 Press ▲/▼/◄/► to select the channel you want to erase, and then press **ENTER**.
• A message screen pops up.

5 Press ◄/► to select "Yes", and then press **ENTER** to erase the selected programme. All the subsequent programmes move up.

6 Repeat the step 5 until all desired channels are erased.

Erase programme menus

01 SAT.1				
01 SAT.1	02 Pro7	03 KABEL	04	05
06	07	08	09	10
11	12	13	14	15
16	17	18	19	20
Next				

↓

02 Pro7				
01 SAT.1	02 Pro7	03 KABEL	04	05
06	07	08	09	10
11	12	13	14	15
16	17	18	19	20
Next				

↓

02 KABEL				
01 SAT.1	02 KABEL	03	04	05
06	07	08	09	10
11	12	13	14	15
16	17	18	19	20
Next				

Basic adjustment settings

Language setting for on-screen display

You can also select a language from setup menu. Select from among 3 languages: English, Chinese and Arabic.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Setup".

3 Press ▲/▼ to select "Language", and then press **ENTER**.
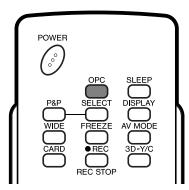
4 Press ▲/▼ to select the desired language listed on the screen, and then press **ENTER**.

OPC setting

Automatically adjusts the brightness of the screen.

Using OPC on the remote control unit

Press **OPC** to switch the Optical Picture Control on and off.

Using OPC on the menu screen

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Picture".

3 Press ▲/▼ to select "OPC".

4 Press ◀/▶ to select "On".

🔖 **NOTE**
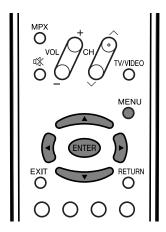
- When set to "On", the System senses the surrounding light and automatically adjusts the backlight brightness. Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.
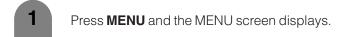
Selected item	Description
Off	The brightness is fixed at the value set in "Backlight" (see page 31).
On	Automatically adjusts

Picture adjustments

Adjust the picture to your preference with the following picture settings.
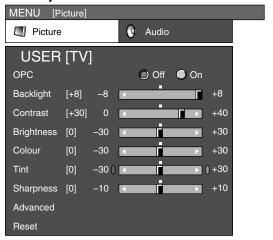
1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Picture".

3 Press ▲/▼ to select a specific adjustment item.

4 Press ◄/► to adjust the item to your desired position.

✎ **NOTE**
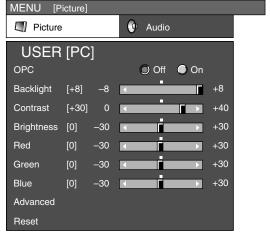
• For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.

Adjustments items for AV source

MENU	[Picture]	
🖵 Picture		🔊 Audio

USER [TV]

OPC		◯ Off ◯ On		
Backlight	[+8]	–8		+8
Contrast	[+30]	0		+40
Brightness	[0]	–30		+30
Colour	[0]	–30		+30
Tint	[0]	–30		+30
Sharpness	[0]	–10		+10
Advanced				
Reset				

Selected item	◄button	►button
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
Colour	For less colour intensity	For more colour intensity
Tint	Skin tones become purplish	Skin tones become greenish
Sharpness	For less sharpness	For more sharpness

✎ **NOTE**

• Select "Advanced" and then press **ENTER** to set "C.M.S-Hue", "C.M.S-Saturation", "C.M.S-Value", "Colour Temp", "Black", "3D-Y/C", "Monochrome", "Film Mode" or "I/P Setting". See pages 32 and 33.

Adjustments items for PC source

MENU	[Picture]	
🖵 Picture		🔊 Audio

USER [PC]

OPC		◯ Off ◯ On		
Backlight	[+8]	–8		+8
Contrast	[+30]	0		+40
Brightness	[0]	–30		+30
Red	[0]	–30		+30
Green	[0]	–30		+30
Blue	[0]	–30		+30
Advanced				
Reset				

Selected item	◄button	►button
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
Red	For weaker red	For stronger red
Green	For weaker green	For stronger green
Blue	For weaker blue	For stronger blue

✎ **NOTE**

• Select "Advanced" and then press **ENTER** to set "C.M.S-Hue", "C.M.S-Saturation" and "C.M.S-Value".

C.M.S. (Colour Management System)

Colour tone is managed using the six-colour adjustment setting.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Picture".
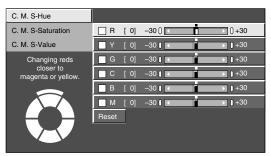
3 Press ▲/▼ to select "Advanced", and then press **ENTER**.

**4** Press ▲/▼ to select "C.M.S.-Hue", and then press **ENTER**.

5 Press ▲/▼ to select a specific adjustment item.

C. M. S-Hue		
C. M. S-Saturation	☐ R [0] −30	+30
C. M. S-Value	☐ Y [0] −30	+30
Changing reds closer to magenta or yellow.	☐ G [0] −30	+30
	☐ C [0] −30	+30
	☐ B [0] −30	+30
	☐ M [0] −30	+30
	Reset	

• You can select "C.M.S-Saturation" or "C.M.S-Value" here instead of selecting "C.M.S-Hue".

**6** Press ◄/► to adjust the item to your desired position.

📝 **NOTE**

• For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.

Selected item	Description
C.M.S-Hue	This is a standard to adjust the colour either more reddish or more bluish in tone.
C.M.S-Saturation	Increases or decreases the saturation of a selected colour
C.M.S-Value	A higher value makes the image brighter. A lower value makes the image darker.

Colour temperature

Adjusts the colour temperature to give the best white image.

1 Repeat steps 1 to 3 in **C.M.S. (Colour Management System)**.

2 Press ▲/▼ to select "Colour Temp", and then press **ENTER**.

3 Press ▲/▼ to select the desired level, and then press **ENTER**.

Selected item	Description
High	White with bluish tone
Mid-High	
Mid	↕
Mid-Low	
Low	White with reddish tone

Black

For easier viewing, change the viewing depth by selecting a level for automatically adjusting the dark portion of an image.

1 Repeat steps 1 to 3 in **C.M.S. (Colour Management System)**.
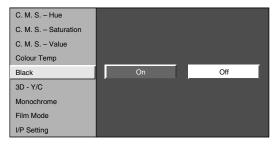
2 Press ▲/▼ to select "Black", and then press **ENTER**.

3 Press ◄/► to select "On", and then press **ENTER**.

C. M. S. – Hue	
C. M. S. – Saturation	
C. M. S. – Value	
Colour Temp	
Black	On Off
3D - Y/C	
Monochrome	
Film Mode	
I/P Setting	

Selected item	Description
Off	No adjustment
On	For high detail in black portions

Basic adjustment settings

3D-Y/C

Provides high quality images with minimal dot crawl and cross colour noise.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Picture".
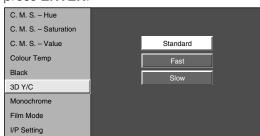
3 Press ▲/▼ to select "Advanced", and then press **ENTER**.

4 Press ▲/▼ to select "3D-Y/C", and then press **ENTER**.
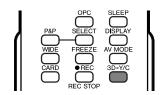
C. M. S. – Hue	
C. M. S. – Saturation	
C. M. S. – Value	Standard
Colour Temp	Fast
Black	Slow
3D Y/C	
Monochrome	
Film Mode	
I/P Setting	

5 Press ▲/▼ to select the desired level, and then press **ENTER**.

Selected item	Description
Standard	Normal adjustment
Fast	For movie image
Slow	For still image

📎 **NOTE**
• "3D-Y/C" is not selectable depending on the input signal type.

Activating 3D-Y/C on the remote control unit

```
         OPC      SLEEP
      SELECT   DISPLAY
P&P
WIDE   FREEZE   AV MODE
CARD   ●REC     3D-Y/C
       REC STOP
```

Press **3D-Y/C** to switch the 3D-Y/C function on and off.

📎 **NOTE**
• "3D-Y/C" is set to "On" when the System is turned back on.
• 3D-Y/C may not operate depending on the input signal type.

Monochrome

For viewing a video in monochrome.

1 Repeat steps 1 to 3 in **3D-Y/C**.

2 Press ▲/▼ to select "Monochrome", and then press **ENTER**.

3 Press ◄/► to select "On", and then press **ENTER**.

Film mode

Automatically detects a film-based source (originally encoded at 24/25 frames/second, depending on the vertical frequency), analyses it then recreates each still film frame for high-definition picture quality.

1 Repeat steps 1 to 3 in **3D-Y/C**.

2 Press ▲/▼ to select "Film Mode", and then press **ENTER**.
• Some items may be greyed out. They are not selectable.

3 Press ◄/► to select "On", and then press **ENTER**.

I/P setting

Adjusting the image and input signal can give you a more beautiful picture.

1 Repeat steps 1 to 3 in **3D-Y/C**.

2 Press ▲/▼ to select "I/P Setting", and then press **ENTER**.
• Some items may be greyed out. They are not selectable.

3 Press ◄/► to select "Interlace" or "Progressive", and then press **ENTER**.
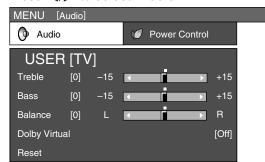
📎 **NOTE**
• The I/P Setting is set to Progressive when Film Mode is "On".

Basic adjustment settings

Audio adjustment

You can adjust the sound quality to your preference with the following settings.

1   Press **MENU** and the MENU screen displays.

2   Press ◄/► to select "Audio".

MENU [Audio]	
🔊 Audio	🍃 Power Control

USER [TV]

Treble	[0]	−15	◄━━━▮━━━►	+15
Bass	[0]	−15	◄━━━▮━━━►	+15
Balance	[0]	L	◄━━━▮━━━►	R
Dolby Virtual				[Off]
Reset				

3   Press ▲/▼ to select a specific adjustment item.

4   Press ◄/► to adjust the item to your desired position.

Selected item	◄button	►button
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

✎ **NOTE**
- For resetting all adjustment items to factory preset values, press ▲/▼ to select "Reset", press **ENTER**, press ◄/► to select "Yes", and then press **ENTER**.
- Audio menu items are greyed out when Audio output is variable or when headphones are in use.
- Balance is greyed out when Dolby Virtual is set to "On".

Dolby Virtual

You can also produce Dolby Virtual effects from the "Audio" setting.

1   Press **MENU** and the MENU screen displays.

2   Press ◄/► to select "Audio".
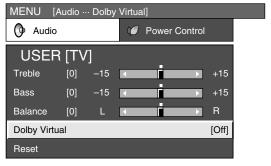
3   Press ▲/▼ to select "Dolby Virtual", and then press **ENTER**.

MENU [Audio ⋯ Dolby Virtual]	
🔊 Audio	🍃 Power Control

USER [TV]

Treble	[0]	−15	◄━━━▮━━━►	+15
Bass	[0]	−15	◄━━━▮━━━►	+15
Balance	[0]	L	◄━━━▮━━━►	R
Dolby Virtual				[Off]
Reset				

4   Press ◄/► to select "On", and then press **ENTER**.

✎ **NOTE**
- Audio menu items are greyed out when Audio output is variable or when headphones are in use.
- External Audio Bypass is greyed out when Dolby Virtual is set to "On".
- Balance is greyed out when Dolby Virtual is set to "On".
- For some discs, setup may be required on your DVD. In this case, please refer to the operation manual of your DVD player.
- You may not get the Dolby Virtual Surround effect if you adjust "Treble" or "Bass" setting.

Basic adjustment settings

Power control

Power control setting allows you to save energy.

Power control for AV source

No Signal off

When set to "Enable", the power will automatically shut down if no signal inputs for 15 minutes.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Power control".
• Power control menu displays.

3 Press ▲/▼ to select "No Signal Off", and then press **ENTER**.

4 Press ◄/► to select "Enable", and then press **ENTER**
• Five minutes before the power shuts down, remaining time displays every minute.

📎 **NOTE**

• "Disable" is factory preset value.
• When a TV programme finishes, and the AVC System receives signal input, this function may not operate.

No Operation off

When set to "Enable", the power will automatically shut down if there is no operation for 3 hours.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Power control".
• Power control menu displays.

3 Press ▲/▼ to select "No Operation Off", and then press **ENTER**.

4 Press ◄/► to select "Enable", and then press **ENTER**.
• Five minutes before the power shuts down, remaining time displays every minute.

📎 **NOTE**

• "Disable" is factory preset value.

Power control for PC source

Power control setting allows you to save energy.

Power management

When set, the power will automatically shut down.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Power control".
• Power control menu displays.

3 Press ▲/▼ to select "Power Management", and then press **ENTER**.

4 Press ▲/▼ to select "Mode1" or "Mode2", and then press **ENTER**.

	Off
	Mode1
	Mode2

Selected item	Description
Off	• No power management • Factory preset value.
Mode1	• If no signal inputs for 8 minutes, the power shuts down. • Even if you start using the PC and the signal inputs again, the System stays off. • The System turns on again by pressing **POWER**. (See page 19.)
Mode2	• If no signal inputs for 8 seconds, the power shuts down. • When you start using the PC and the signal inputs again, the System turns on. • The System turns on again by pressing **POWER**. (See page 19.)

Using memory card

Important notes on using memory cards

- Sharp cannot be held responsible for misuse of the LCD TV set, any troubles during use, or other problems, or any damages arising out of the use of the LCD TV set, except for those cases for which Sharp is liable by law.
- If you or other people misuse the LCD TV set, or the LCD TV set is affected by static electricity or electrical noise, the recorded data may be in danger of being changed or lost.
- If you are making an important recording, run a test in advance to ensure that the recording would be performed correctly in terms of picture or sound quality.
- Sharp cannot be held responsible nor make any compensations even if pictures or sound cannot be recorded correctly because of any troubles when using the LCD TV set.

The recording formats

Still picture	Recording/Playback file format	JPEG (DCF compliant)
	Size of a captured still picture	640×480 dots
Motion picture	Recording file format	SP/LP... ASF (Motion Picture: MPEG-4 compliant, Sound: WMA-compliant) EP........ ASF (Motion Picture: MPEG-4 compliant, Sound: G.726-compliant)
	Size of a recorded motion picture/number of frames	SP ... Size: 320×240 dots, Frame: approx. 25 frames/sec (50 Hz) LP ... Size: 320×240 dots, Frame: approx. 25 frames/sec (50 Hz) EP ... Size: 320×240 dots, Frame: approx. 12.5 frames/sec (50 Hz)
	Playback file format	ASF (Motion Picture: MPEG-4 compliant, Sound: WMA-compliant) ASF (Motion Picture: MPEG-4 compliant, Sound: G.726-compliant)

* Motion picture files and still image files recorded, stored or edited with other devices may not play back correctly.

Approximate number of recordable pictures/time

Still pictures

	Picture size	Memory card	
		32MB	128MB
Recordable Pictures	640×480	Approx. 300 pictures	Approx. 1000 pictures

* Recordable numbers may vary depending on the receiving condition of the LCD TV set and/or content of images.

Motion pictures

	Picture size	Recording mode	Memory card capacity	
			256MB	5GB
Recordable time	320×240	SP	Approx. 10 min.	Approx. 4h
	320×240	LP	Approx. 30 min.	Approx. 10h
	320×240	EP	Approx. 1h	Approx. 25h

- Recordable time may vary depending on receiving condition of the LCD TV set or content of images.
- The maximum amount of data you can record on a memory card is 1,000 pictures in total including still and motion pictures.
- Files in excess of 4GB and files exceeding 12 hours of recording time cannot be recorded and/or played back.

Using memory card

You can use memory cards (commercially available) for recording and playing back pictures.
• Please use an appropriate PC card adapter (commercially available) for each memory card.
• Following memory cards are available. (Note that names for memory cards vary depending on manufacturers.)
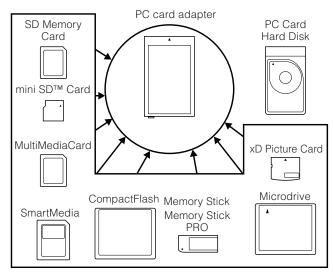
Memory card name	Storage capacity
SD Memory Card	512 MB or less
mini SD™ Card	32 MB or less
CompactFlash	2 GB or less
MultiMediaCard	128 MB or less
SmartMedia	128 MB or less
Memory Stick	128 MB or less
Memory Stick PRO	1 GB or less
Microdrive	2 GB or less
xD Picture Card	128 MB or less
PC Card Hard Disk	5 GB or less

* Each memory card name is a trademark.
* The capacity of memory card is approximate. The capacity varies depending on the manufacturer.

• To read picture files recorded with digital cameras, use the PC card adapter recommended by the corresponding manufacturer. (The names for PC card adapters vary depending on manufacturers.)
• For directions for use of digital cameras or PC card adapters, please refer to the operation manual provided for each product.
• Depending on the card or adapter used, normal operation may not be possible.

You can playback DCF compliant JPEG pictures captured with other devices in the card playback mode.
• DCF (Design rule for Camera File system) is a standard of the Japan Electronics and Information Technology Industries Association (JEITA). This standard specifies the image file format used for images shot with a digital camera.
• Some motion pictures recorded with other devices may not be played back correctly.

Commercially available memory cards

• Please use an appropriate PC card adapter (commercially available) for each memory card.

Preparing a memory card

Insert a memory card (commercially available) into a PC card adapter (commercially available).

Example:
Inserting the SD memory card into a PC card adapter.
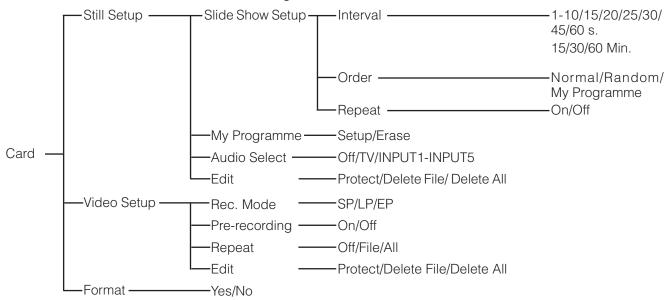
Notes on using memory cards and PC card adapter

Please note the following when using memory cards and PC card adapters to avoid corruption of data or malfunction of the LCD TV set.
• If you use memory cards other than those shown above, recording or playing back pictures are not guaranteed.
• Some PC card adapters have restrictions of memory card capacity. Refer to the relevant operation manual for such restrictions.
• Some pictures which have been created, modified, or copied on your PC may not be played back.
• Please be sure to turn off the LCD TV set when you insert or remove a PC card adapter.
• Do not bend, drop or apply a shock to memory cards or PC card adapters.
• Keep memory cards or PC card adapters away from heat, water or direct sunlight.
• Do not dismantle or modify memory cards or PC card adapters.
• Refer to the appropriate operation manuals for details on using or keeping memory cards or PC card adapters.
• Do not turn the LCD TV set off while a memory card is in operation (e.g. playing back, recording or displaying a slideshow).
• The recorded data may be erased or changed due to incorrect operation, the influence of static electricity and electrical noise, therefore be sure to back-up the data regularly.
• Be sure to back-up important files using other media such as a PC.
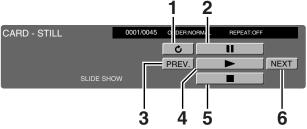
Using memory card

Card Setup mode menu items

Press the **CARD** button first to access following items.

```
                  ┌─ Still Setup ──────── Slide Show Setup ─┬─ Interval ──────────────── 1-10/15/20/25/30/
                  │                                         │                            45/60 s.
                  │                                         │                            15/30/60 Min.
                  │                                         │
                  │                                         ├─ Order ─────────────────── Normal/Random/
                  │                                         │                            My Programme
                  │                                         └─ Repeat ─────────────────── On/Off
                  │
                  │              ┌─ My Programme ───── Setup/Erase
                  │              ├─ Audio Select ───── Off/TV/INPUT1-INPUT5
   Card ──────────┤              └─ Edit ───────────── Protect/Delete File/ Delete All
                  │
                  ├─ Video Setup ─┬─ Rec. Mode ─────── SP/LP/EP
                  │               ├─ Pre-recording ── On/Off
                  │               ├─ Repeat ────────── Off/File/All
                  │               └─ Edit ──────────── Protect/Delete File/Delete All
                  │
                  └─ Format ─────────── Yes/No
```
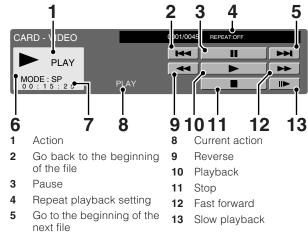
Slide show operation panel   ### Motion picture operation panel

| | **1** | **2** | | | **1** | | **2** | **3** | **4** | | **5** |

```
┌───────────────────────────────────────┐      ┌──────────────────────────────────────────────┐
│ CARD - STILL   0001/0045  ORDER:NORMAL │      │ CARD - VIDEO      0001/0045   REPEAT:OFF       │
│                REPEAT:OFF              │      │                                                │
│                    ↻      ▮▮          │      │  ▶   PLAY              �i◀◀      ▮▮      ▶▶i    │
│             PREV.    ▶     NEXT        │      │                       ◀◀        ▶       ▶▶     │
│     SLIDE SHOW       ▮              │      │  MODE : SP    PLAY     ■       ▮▶   │
│                                        │      │  0 0 : 1 5 : 2?                               │
└───────────────────────────────────────┘      └──────────────────────────────────────────────┘
```

Slide show panel buttons: **3 4 5 6**

Motion picture panel buttons: **6   7   8   9 10 11   12   13**

1 Rotate the image
2 Pause
3 Go to previous image
4 Start slide show
5 Stop slide show
6 Go to next image

1 Action
2 Go back to the beginning of the file
3 Pause
4 Repeat playback setting
5 Go to the beginning of the next file
6 Recording mode
7 Counter
8 Current action
9 Reverse
10 Playback
11 Stop
12 Fast forward
13 Slow playback

Precautions when playing back PC image data on the LCD TV

Recording formats of image data:
When recording image data on the LCD TV, the recording formats are as follows.
• When recording motion pictures: The SD_VIDEO folder is created and the data is stored in. When playing the card, the SD_VIDEO recording format is recognised.
• When recording still pictures: The DCIM folder is created and the data is stored in. When playing the card, the DCIM recording format is recognised.
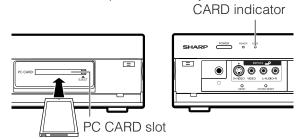
When playing the card, record PC data in a recording format the LCD TV can recognise.
1. When copying motion pictures from a PC to a card recorded with the LCD TV, only play these pictures after placing them in the SD_VIDEO folder.
2. When copying still pictures from a PC to a card recorded with the LCD TV, only play these pictures after placing them in the DCIM folder.
3. When using a new card for copying motion pictures, first format the card and create an SD_VIDEO folder before placing the data in the folder for playback.
4. When using a new card for copying still pictures, first format the card and create a DCIM folder before placing the data in the folder for playback.

When creating, revising, or copying images using your PC, the edited images may not playback correctly.

Inserting a PC card adapter
• Press in the EJECT button if it is popped out.
• Insert a memory card to a PC card adapter beforehand. (See page 37.)
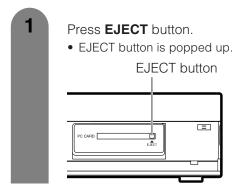• Insert the PC adapter card slowly.

CARD indicator

PC CARD slot

• CARD indicator lights up green when the card is inserted.

✎ **NOTE**
• When "Card is not inserted" is displayed, eject the PC card adapter, and then insert the PC card adapter slowly all the way to the end.
• When over a thousand files are in a card, it takes several minutes to load. (approx. 5 minutes.)
• Even if the green light is on, you can not record on a card right after you inserted it.
• Make sure the CARD indicator lights green when you take out a card. Never take out a card when the CARD indicator lights red. This may damage the card.

Ejecting the card
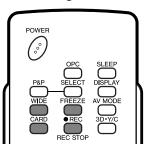• Make sure the card indicator lights up green.

1 Press **EJECT** button.
• EJECT button is popped up.

EJECT button

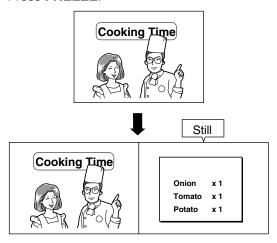**2** Press **EJECT** button again.
• PC card adapter itself pops up.

3 Take out the PC card adapter.

Recording a still image

You can record a still image on the card.

1 Press **FREEZE**.

Cooking Time

Still

Cooking Time

Onion   x 1
Tomato   x 1
Potato   x 1

2 Press ● **REC**.

Still

Cooking Time

Still image was captured on a card.

x 1
Tomato   x 1
Potato   x 1

• "Still image was captured on a card." displays.
• Recording may fail depending on the input signal type or card memory status.

3 Press **ENTER** to update the still image.

Still

Cooking Time

✎ **NOTE**
Broadcasting types or input signals not available for recording:
① COMPONENT input
② Copy guarded signal
③ DVI-I input

Selecting Still mode

1 Press **CARD** and the card mode screen displays.

2 Press ◄/► to select "Still", and then press **ENTER**.
- When in CARD mode, press **0-9** or **TV/VIDEO** to switch either TV or AV input mode.

Displaying a still image

1 Press **CARD** and the card mode screen displays.

2 Press ◄/► to select "Still" and then press **ENTER**.

3 Press ▲/▼/◄/► to select a file you want to display, and then press **ENTER**.

◖ Still	◫ Video
File 1	File 2	File 3
File 4	File 5	File 6
File 7	File 8	File 9

◄   ►

- To display the files that are in the previous or next page, select ◄/► on the index screen and press **ENTER**.
- When viewing a still image, by pressing **WIDE** the image size changes. Normal – Full. This function does not work when displaying the index screen.

Setting Slide Show

You can adjust the interval, order and repeat settings.

1 Press **CARD** and the card mode screen displays.
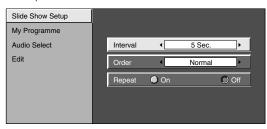
2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Still Setup", and then press **ENTER**.

5 Press ▲/▼ to select "Slide Show Setup" and then press **ENTER**.

Slide Show Setup	
My Programme	
Audio Select	Interval ◄ 5 Sec. ►
Edit	Order ◄ Normal ►
	Repeat ○ On ○ Off

6 Press ▲/▼/◄/► to select the desired slide show setting, and then press **ENTER**.

Selected item	Description
Interval	Set the frame interval for a slideshow.
Order	Set the frame order for a slideshow. See My Programme for details.
Repeat	If set to "On", the slideshow will play again after showing the last frame.

Displaying slide show

1 Repeat steps 1 to 3 in **Displaying a still image**.
- The operation panel displays.

CARD - STILL	0001/0045 ORDER:NORMAL REPEAT:OFF
	↻ ▐▐
	PREV. ► NEXT
SLIDE SHOW STOP	■

2 Press ▲/▼/◄/► to select ►, and then press **ENTER**.
- Slide show starts.
- Operate slide show with the operation panel appears on the screen.
- To turn off the operation panel, press **CARD** on the remote control.
- Press ▐▐ to pause the slideshow, and press ■ to return to the index screen.

🖉 **NOTE**
- See page 38 for operation panel function.
- You cannot rotate the image during slide show. Stop slide show to rotate the image.

Using memory card

My Programme

You can select up to thirty-two pictures and specify the order for displaying in slide show.
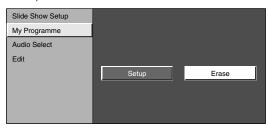
1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Still Setup", and then press **ENTER**

5 Press ▲/▼ to select "My Programme", and then press **ENTER**.

Slide Show Setup	
My Programme	
Audio Select	
Edit	
	Setup Erase

6 Press ◄/► to select "Setup", and then press **ENTER**.

7 Press ▲/▼/◄/► to select the files, and then press **ENTER**.

8 Repeats the operation in step 7. (You can select up to 32 files.)

9 After selecting all the files you want, press **RETURN** to return to MENU.

To cancel My Programme setting

1 Select "Erase" at step 6 in **My Programme** and then press **ENTER**.

2 Press ◄/► to select "Yes", and then press **ENTER**.
• All the registered numbers are cleared.

Audio Select

You can enjoy the audio from TV or other external equipment during the still image playback.

1 Repeat steps 1 to 4 in **My Programme**.

2 Press ▲/▼ to select "Audio Select", and then press **ENTER**.

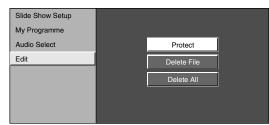| Slide Show Setup		
My Programme		
Audio Select	Off	TV
Edit	Input1	Input2
	Input3	Input4
	Input5	

3 Press ▲/▼/◄/► to select the desired sound output, and then press **ENTER**.

Protecting/unprotecting still image files

You can protect any file you do not want to delete.

1 Repeat steps 1 to 4 in **My Programme**.

2 Press ▲/▼ to select "Edit", and then press **ENTER**.

Slide Show Setup	
My Programme	
Audio Select	Protect
Edit	Delete File
	Delete All

3 Press ▲/▼ to select "Protect", and then press **ENTER**.
• The list of still image files displays.

File 1	File 2	File 3
File 4	File 5	File 6
File 7	File 8	File 9

4 Press ▲/▼/◄/► to select the file you want to protect, and then press **ENTER**.
• Protect mark (🔒) displays.
• Select the file with a protect mark and press **ENTER** to unprotect it.

🖉 NOTE
• You cannot delete a protected file on the card.

Using memory card

Deleting a still image file

1 Press **CARD** and the card mode screen displays.
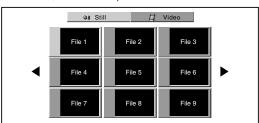
2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Still Setup", and then press **ENTER**.

5 Press ▲/▼ to select "Edit", and then press **ENTER**.

6 Press ▲/▼ to select "Delete File", and then press **ENTER**.

7 Press ▲/▼/◄/► to select the file you want to delete, and then press **ENTER**.

◘ɪ Still	🎞 Video

File 1	File 2	File 3
File 4	File 5	File 6
File 7	File 8	File 9

8 Press ◄/► to select "Yes", and then press **ENTER**.

9 Repeat the operations in steps 7 and 8 above.

10 After deleting the images you no longer need, press **RETURN** to return to MENU.

✎ NOTE
• You cannot delete a protected file on the card.
• Do not turn off the power or take out a card when deleting a file. The card may malfunction.

Deleting all still image files

1 Select "Delete All" instead of "Delete File" in step 6 in **Deleting a still image file**.

Slide Show Setup	
My Programme	
Audio Select	Protect
Edit	Delete File
	Delete All

2 Press ◄/► to select "Yes", and then press **ENTER**.

✎ NOTE
• You cannot delete a protected file on the card.
• Do not turn off the power or take out a card when deleting a file. The card may malfunction.

Using memory card

Recording a motion picture

Use this setting to record images you are currently watching.
Record with the settings made in "Rec. Mode" and "Pre-recording".

1 Press ● **REC** to start recording.
• CARD indicator lights up red.
• Recording information displays in the lower right corner of the screen.

2 Press ● **REC** to stop recording.

📎 **NOTE**

Broadcasting types or input signals not available for recording:
① COMPONENT input
② Copy guarded signal
③ DVI-I input

To display the remaining record time.

Press **DISPLAY** while not recording.
• Remaining record time displays in the lower right corner of the screen.

📎 **NOTE**

• Do not press **MAIN POWER** on the display while recording. Recording cannot finish properly and may damage the file.
• Recording stops if you press **POWER** on the remote control while recording.
• When card has no capacity for recording, "Card is full" displays and stops recording.
• You cannot change the channel or switch the input source while recording.

Selecting Video mode
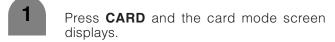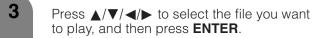
1 Press **CARD** and the card mode screen displays.

2 Press ◄/► to select "Video", and then press **ENTER**.
• When in CARD mode, press **0-9** or **TV/VIDEO** to switch either TV or AV input mode.

Displaying a motion picture

1 Press **CARD** and the card mode screen displays.

2 Press ◄/► to select "Video", and then press **ENTER**.

3 Press ▲/▼/◄/► to select the file you want to play, and then press **ENTER**.
• Video playback starts.

CARD - VIDEO		0001/0045 REPEAT:OFF
► PLAY	⏮ ⏸ ⏭	
MODE : SP	◄◄ ► ►►	
0 0 : 1 5 : 2 5	PLAY ■ ⏭	

4 Press **CARD** again to display the operation panel.
• See page 38 for the operation panel information.
• When viewing a motion picture, by pressing **WIDE** the picture size changes.
Small – Medium – Large.

Rec. Mode

Use this setting for recording images you are currently watching. You can select the recording mode (picture quality) for a motion picture.
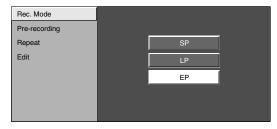
1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Video Setup" and then press **ENTER**.

5 Press ▲/▼ to select "Rec. Mode", and then press **ENTER**

Rec. Mode	
Pre-recording	
Repeat	SP
Edit	LP
	EP

6 Press ▲/▼ to select the desired mode, and then press **ENTER**.

Using memory card

Pre-recording

You can record the picture slightly before the point where you pressed the record button, enabling you to record just the scene you wanted.

1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Video Setup" and then press **ENTER**.

5 Press ▲/▼ to select "Pre-recording", and then press **ENTER**.

Rec. Mode	
Pre-recording	
Repeat	
Edit	
	On Off

6 Press ◄/► to select "On", and then press **ENTER**.

Repeat
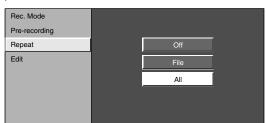
You can specify one file or all files to replay repeatedly.

1 Repeat steps 1 to 4 in **Pre-recording**.

2 Press ▲/▼ to select "Repeat", and then press **ENTER**.

Rec. Mode	
Pre-recording	
Repeat	Off
Edit	File
	All

3 Press ▲/▼ to select desired setting, and then press **ENTER**.
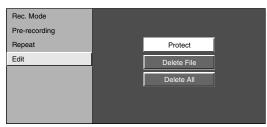
Selected item	Description
Off	No playback or repeat.
File	Plays back and repeats one file.
All	Plays back all movie files on the card then repeats.

Protecting/unprotecting motion picture files

You can protect any file you do not want to delete.

1 Repeat steps 1 to 4 in **Pre-recording**.

2 Press ▲/▼ to select "Edit", and then press **ENTER**.

Rec. Mode	
Pre-recording	
Repeat	Protect
Edit	Delete File
	Delete All

3 Press ▲/▼ to select "Protect", and then press **ENTER**.
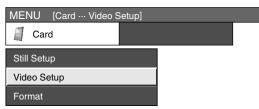
4 Press ▲/▼/◄/► to select the file you want to protect, and then press **ENTER**.
- Protect mark (🖫) displays.
- Select the file with a protect mark and press **ENTER** to unprotect it.

5 Repeat the operation in step 4.

6 After setting the files you want to protect, press **RETURN** to return to MENU.

Deleting a motion picture file

1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Video Setup", and then press **ENTER**.

> MENU [Card ··· Video Setup]
> 🗐 Card
>
> Still Setup
> Video Setup
> Format

5 Press ▲/▼ to select "Edit", and then press **ENTER**.

6 Press ▲/▼ to select "Delete File", and then press **ENTER**.

> Rec. Mode
> Pre-recording
> Repeat
> Edit
>
> Protect
> Delete File
> Delete All

7 Press ▲/▼/◄/► to select the file you want to delete, and then press **ENTER**.

8 Press ◄/► to select "Yes", and then press **ENTER**.

9 Repeat the operations in steps 7 and 8 above.

10 After deleting the images you no longer need, press **RETURN** to return to MENU.

📎 **NOTE**
• You cannot delete a protected file on the card.
• Do not turn off the power or take out a card when deleting a file. The card may malfunction.

Deleting all motion picture files

1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Video Setup", and then press **ENTER**.

5 Press ▲/▼ to select "Edit", and then press **ENTER**.

6 Press ▲/▼ to select "Delete All", and then press **ENTER**.

> Rec. Mode
> Pre-recording
> Repeat
> Edit
>
> Protect
> Delete File
> Delete All

7 Press ◄/► to select "Yes", and then press **ENTER**.

📎 **NOTE**
• You cannot delete a protected file on the card.
• Do not turn off the power or take out a card when deleting a file. The card may malfunction.

Format

1 Press **CARD** and the card mode screen displays.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Card".

4 Press ▲/▼ to select "Format" and then press **ENTER**.

5 Press ◄/► to select "Yes", and then press **ENTER**.

📎 **NOTE**
• Formatting a card deletes all files including the ones which set to protect.
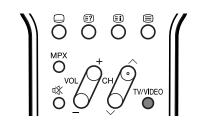
Using external equipment

You can connect many types of external equipment to your System, like an HDTV tuner VCR, DVD player, PC, game console and camcorder. To view external source images, select the input source from **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the Display.

Displaying an external equipment image

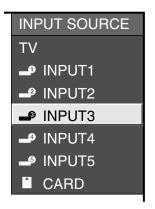Explanation here is for the setting when connecting DVD to INPUT2 terminal.

⚠ CAUTION

• To protect all equipment, always turn off the AVC System before connecting to an HDTV tuner, VCR, DVD player, PC, game console, camcorder or other external equipment.

✎ NOTE

• See pages 47 to 49 for external equipment connection.
• Please refer to the relevant operation manual (DVD player, PC, etc.) carefully before making connections.
• Each time **TV/VIDEO** is pressed, the input source toggles.
• If the image does not come in clearly, you may need to change the input signal type setting on the "Input Select" menu.
• Refer to your external equipment operation manual for the signal type.

Displaying a DVD image (Example)

1 To watch a DVD image, select "INPUT3" from "INPUT SOURCE" menu using **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the Display.

2 Select the desired signal type on "Input Select" in the "Option" menu. (See page 52.)
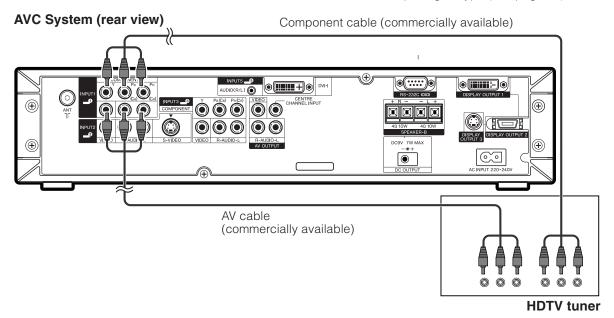
For INPUT3 signal

The setting is stored and can be selected on the "INPUT SOURCE" menu.

Using external equipment

Connecting an HDTV tuner

You can use the INPUT 1 terminal when connecting an HDTV tuner and other audiovisual equipment.

To watch an image from this input terminal, you need to select the input source (see page 46) and the input signal type (see page 52).

AVC System (rear view)

Component cable (commercially available)

AV cable
(commercially available)

HDTV tuner
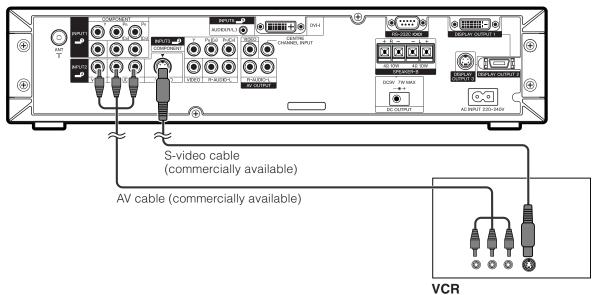
Connecting a VCR

You can use the INPUT 2 terminal when connecting a VCR and other audiovisual equipment.

To watch an image from this input terminal, you need to select the input source (see page 46) and the input signal type (see page 52).

AVC System (rear view)

S-video cable
(commercially available)

AV cable (commercially available)

VCR

Using external equipment
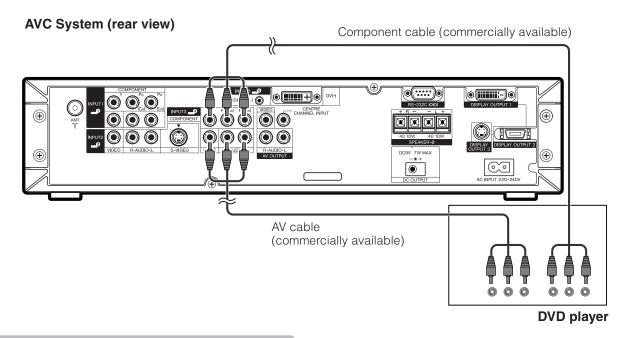
Connecting a DVD player

You can use the INPUT 3 terminal when connecting to a DVD player and other audiovisual equipment.

AVC System (rear view)

Component cable (commercially available)

AV cable
(commercially available)

DVD player

Connecting a game console or camcorder

A game console, camcorder and some other audiovisual equipment are conveniently connected using the INPUT 4 terminals.
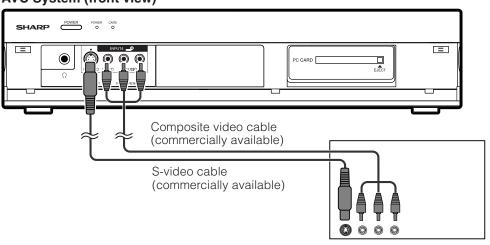
> **NOTE**
> • The S-video terminal has priority over the video terminals.
> • You can also connect the game console to INPUT 1, 2 or 3 terminals to enjoy clearer picture.

AVC System (front view)

Composite video cable
(commercially available)

S-video cable
(commercially available)

Game console/Camcorder

Using external equipment
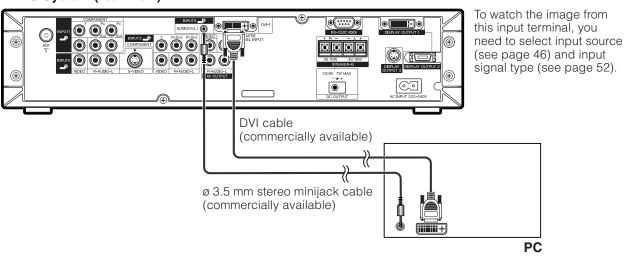
Connecting a PC
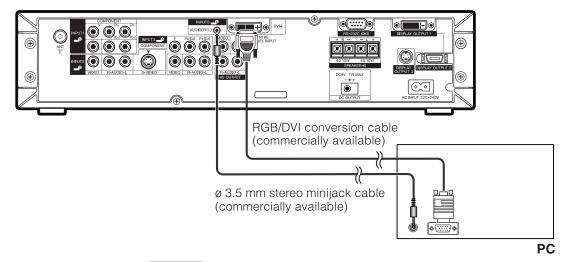
Use the INPUT5 terminals to connect a PC.

✎ NOTE

• The PC input terminals are DDC1/2B-compatible.
• Refer to page 67 for a list of PC signals compatible with the System.

AVC System (rear view)

To watch the image from this input terminal, you need to select input source (see page 46) and input signal type (see page 52).

DVI cable
(commercially available)

ø 3.5 mm stereo minijack cable
(commercially available)

PC

RGB/DVI conversion cable
(commercially available)

ø 3.5 mm stereo minijack cable
(commercially available)

PC
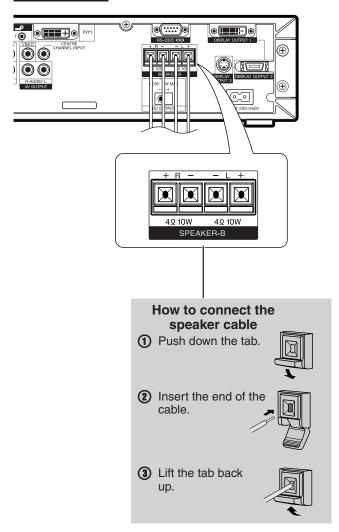
✎ NOTE

• Macintosh adaptor may be required for use for some Macintosh computers.
• When connecting to a PC, the correct input signal type is automatically detected. (See page 57.) If the PC image does not come in clearly, you may need to set the Auto Sync. adjustment in the "Setup" menu. (See page 51.)

Speaker Setup

Connecting external speakers

Rear view

How to connect the speaker cable
① Push down the tab.

② Insert the end of the cable.

③ Lift the tab back up.

When using external speakers
• Change the speaker setting to "SPEAKER-B".

Make sure to connect the speaker terminal and cable polarity (+ , −) properly
• The speaker terminal has plus (+) and minus (−) polarity.
• Plus is red and minus is black.
• The cables are also divided into plus and minus.
• When connecting the left/right speakers, be sure to connect the plus/minus terminals with the correct cables.

NOTE
• Unplug the AC cord from the AC outlet before installing the speakers.

CAUTION
• Make sure external speakers have 4 ohm and 10 watt specifications.
• Connect the plus/minus terminals with the correct cables. Incorrect connection may cause a short.

Selecting speakers

You can output audio using the supplied speakers or other external speakers.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Speaker Setup", and then press **ENTER**.

4 Press ▲/▼ to select "Speaker", and then press **ENTER**.

5 Press ◄/► to select "SPEAKER-A" or "SPEAKER-B", and then press **ENTER**.

Selected item	Description
SPEAKER-A	Speaker connected to the Display.
SPEAKER-B	Speaker connected to the AVC System.

External Audio Bypass

External Audio Bypass automatically optimises the audio quality to suit internal (supplied) speakers.

1 Repeat steps 1 to 3 in **Selecting speakers** above.

2 Press ▲/▼ to select "External Audio Bypass", and then press **ENTER**.

3 Press ◄/► to select "Yes" or "No", and then press **ENTER**.

Selected item	Description
No	Sets the optimum audio for the internal (supplied) speakers.
Yes	When you are using your own speakers, output the original sound.

NOTE
• External Audio Bypass is greyed out when Dolby Virtual is set to "On".
• When using external speakers (SPEAKER-B), make sure to set "External Audio Bypass" to "Yes".
• When Dolby Virtual is on, External Audio Bypass automatically sets to "Yes".

Useful adjustment settings

Image position (for TV/AV input mode)

For adjusting a picture's horizontal and vertical position.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Setup".

3 Press ▲/▼ to select "Position", and then press **ENTER**.

4 Press ▲/▼ to select "H-Pos." or "V-Pos.".

H-Pos.	[0]	−10		+10
V-Pos.	[0]	−20		+20
Reset				

5 Press ◀/▶ to adjust the item to your desired position.

✎ **NOTE**
- For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.
- **Adjustments are stored separately according to input source.**
- This function is available for AV input mode and TV tuner mode.

Selected item	Description
H-Pos.	Centres the image by moving it to the left or right.
V-Pos.	Centres the image by moving it up or down.

Audio Only

When listening to music from a music programme, you can set the Liquid Crystal display off and enjoy audio only.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Option".

3 Press ▲/▼ to select "Audio Only", and then press **ENTER**.

4 Press ◀/▶ to select "On", and then press **ENTER**.

Selected item	Description
On	Audio is output without screen image.
Off	Both screen images and audio are output.

Auto Sync. adjustment (PC input mode only)

For automatically adjusting the PC image.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Setup".
- Setup menu displays.

3 Press ▲/▼ to select "Auto Sync.", and then press **ENTER**.

4 Press ◀/▶ to select "Yes", and then press **ENTER**.
- Auto Sync. starts and "Adjusting the image" displays.

	30%

✎ **NOTE**
- When Auto Sync. is successful, "Auto Sync completed successfully" displays. If not, Auto Sync. failed.
- Auto Sync. may fail even if "Auto Sync completed successfully" displays.
- Auto Sync. is likely to succeed when an input PC image has wide vertical stripes (ex. pattern with high contrast stripes, or cross-hatched).
  It may fail when an input PC image is solid (low contrast).
- Be sure to connect the PC to the AVC System and switch it on before starting Auto Sync.

Fine Sync. adjustment (PC input mode only)

Ordinarily you can easily adjust the picture as necessary to change image position using Auto Sync. In some cases, however, manual adjustment is needed to optimise the image.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".
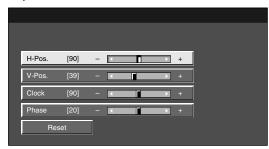
3 Press ▲/▼ to select "Fine Sync.", and then press **ENTER**.

4 Press ▲/▼ to select the specific adjustment item.
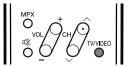
H-Pos.	[90]	– ◄ ▌ ► +
V-Pos.	[39]	– ◄ ▌ ► +
Clock	[90]	– ◄ ▌ ► +
Phase	[20]	– ◄ ▌ ► +
Reset		

5 Press ◄/► to adjust the item to your desired position.

NOTE
• For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press **ENTER**.

Selected item	Description
H-Pos.	Centres the image by moving it to the left or right.
V-Pos.	Centres the image by moving it to the up or down.
Clock	Adjusts when the image flickers with vertical stripes.
Phase	Adjusts when characters have low contrast or when the image flickers.

Input Select

Selecting input source
Can use for selecting the input source.

1 Press **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the Display.

2 Press **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the Display to select the input source.
• An image from the selected source automatically displays.
• You can also select the input source by pressing ▲/▼.

Selecting input signal type
For setting the signal type of external equipment.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option".

3 Press ▲/▼ to select "Input Select", and then press **ENTER**.

4 Press ▲/▼/◄/► to select a signal type you want to set, and then press **ENTER**.
• If the selected signal type is incorrect, an image does not display or no colour image displays.
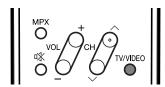
Input type	Selectable item
INPUT 1	AUTO, COMPONENT, VIDEO
INPUT 2	AUTO, S-VIDEO, VIDEO
INPUT 3	AUTO, COMPONENT, VIDEO
INPUT 4	AUTO, S-VIDEO, VIDEO
INPUT 5	PC digital, PC analogue, AV digital, AV analogue

NOTE
• **If no (colour) image displays, try to change the other signal type.**
• Check the operation manual of the external equipment for the signal type.
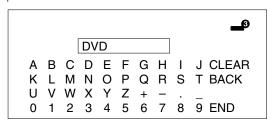
Useful adjustment settings

Input Label

You can assign each input source a label you like.
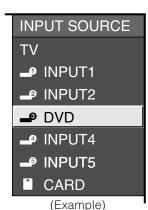
1 Press **TV/VIDEO** to select the input source whose label you would like to change.

2 Press **MENU** and the MENU screen displays.

3 Press ◄/► to select "Setup".

4 Press ▲/▼ to select "Input Label", and then press **ENTER**.

5 Press ▲/▼/◄/► to select each character of the new name for the channel, and then press **ENTER**.

```
                                    ▣3

        DVD

   A  B  C  D  E  F  G  H  I  J  CLEAR
   K  L  M  N  O  P  Q  R  S  T  BACK
   U  V  W  X  Y  Z  +  −  .  _
   0  1  2  3  4  5  6  7  8  9  END
```

6 Repeat the above until the name is fully spelt out, and then press **ENTER**.
• The name can be 6 characters or less.

```
   INPUT SOURCE
   TV
   ▣1  INPUT1
   ▣2  INPUT2
   ▣3  DVD
   ▣4  INPUT4
   ▣5  INPUT5
   ▣  CARD
```
(Example)
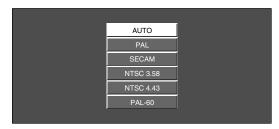
🖊 **NOTE**

• You cannot change labels if the INPUT SOURCE is TV or CARD.

Colour system setting (for TV/AV input mode)

You can change the colour system to one that is compatible with the image on the screen.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option".

3 Press ▲/▼ to select "Colour System", and then press **ENTER**.

4 Press ▲/▼ to select a compatible video signal system of your equipment, and then press **ENTER**.
• Some items may be greyed out. They are not selectable.

```
        AUTO
        PAL
        SECAM
        NTSC 3.58
        NTSC 4.43
        PAL-60
```
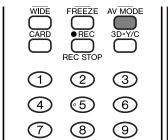
🖊 **NOTE**

• Factory preset value is "AUTO".
• If "AUTO" is selected, colour system for each channel is automatically set. If an image does not display clearly, select another colour system (e.g. PAL, NTSC 4.43).
• This function is available for AV input mode and TV tuner mode.

Useful adjustment settings

AV mode selection

AV mode gives you five viewing options to choose from to best match the system environment, which can vary due to factors like room-brightness, type of programme watched or the type of image input from external equipment.

WIDE	FREEZE	AV MODE
CARD	●REC	3D-Y/C
	REC STOP	

①	②	③
④	⑤	⑥
⑦	⑧	⑨
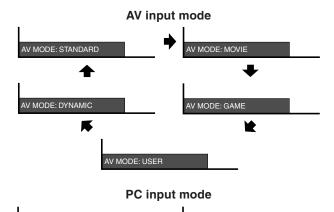
1 Press **AV MODE**.
• Present AV mode displays.

2 Press **AV MODE** again before the mode displayed on the screen disappears.
• The mode changes as shown below.

AV input mode

AV MODE: STANDARD → AV MODE: MOVIE ↓
AV MODE: DYNAMIC ↑ AV MODE: GAME ↓
AV MODE: USER

PC input mode

AV MODE: STANDARD ↔ AV MODE: USER

Selected item	Description
STANDARD	For a highly defined image in a normally bright room
MOVIE	For a movie
GAME	Lowers image brightness for easier viewing.
USER	Allows the user to customise settings as desired. You can set the mode for each input source.
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing

📎 **NOTE**

• You can select a different AV MODE item for each input mode. (For example, select STANDARD for TV input and DYNAMIC for VIDEO input.)

Wide screen signalling (WSS) (for TV/AV input mode)

WSS allows a television to switch automatically among the different screen formats.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "WSS", and then press **ENTER**.

4 Press ◄/► to select "On" or "Off", and then press **ENTER**.

📎 **NOTE**

• Try to set WIDE mode if an image does not switch to the correct screen format. When the broadcast signal contains no WSS information, the function will not work even if enabled.
• This function is available for AV input mode and TV tuner mode.

Picture aspect ratio (for TV/AV input mode)

The WSS signal has 4:3 auto-switching that allows you to select between Normal and Panorama.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "4:3 Mode", and then press **ENTER**.

4 Press ◄/► to select "Normal" or "Panorama", and then press **ENTER**.

WSS signal 4:3 screen
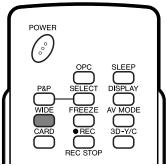
4:3 mode "Normal"   4:3 mode "Panorama"
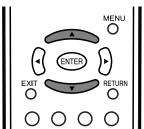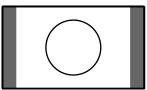
Selected item	Description
Normal	Normal range keeping 4:3 or 16:9 aspect ratio
Panorama	Wide image without side bars

Useful adjustment settings
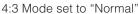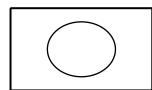
WIDE MODE
Normal
Zoom 14:9
Panorama
Full
Cinema 16:9
Cinema 14:9

4:3 Mode set to "Normal"   4:3 Mode set to "Panorama"

WIDE mode (for TV/AV input mode)

Manual Selection

1 Press **WIDE**.
- The WIDE MODE menu displays.
- The menu lists the wide mode options selectable for the type of video signal currently received.

2 Press **WIDE** or ▲/▼ while the WIDE MODE menu displays on the screen.
- As you toggle down the options, each is immediately reflected on the Display. No need to press **ENTER**.

Auto Selection
If you set "WSS" and "4:3 Mode" in the Setup menu on page 54, the optimum WIDE mode is automatically chosen for every broadcast containing the WSS information.

"WSS" menu
To enable Auto Selection, set "WSS" in the Setup menu to "On". (See page 54.)
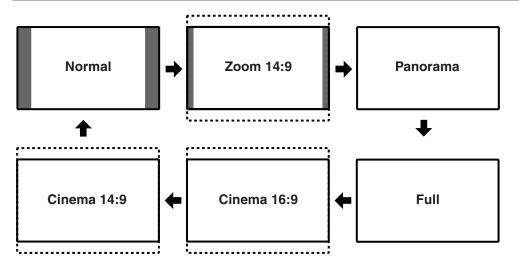
"4:3 Mode" menu
To set the type of the wide screen, select "Normal" or "Panorama" in the 4:3 Mode menu. (See page 54.)
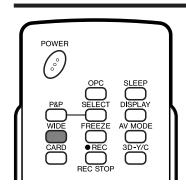
📝 **NOTE**
- If the broadcast signal contains no WSS information, Auto Selection will not function even when the WSS option is enabled.
- This function is available for AV input mode and TV tuner mode.

Selected item	Description
Normal	For 4:3 "standard" pictures. A side bar appears on each side.
Zoom 14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.
Panorama	In this mode the picture is progressively stretched toward each side of the screen.
Full	For 16:9 squeeze pictures.
Cinema 16:9	For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Cinema 14:9	For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.

Normal ➡ **Zoom 14:9** ➡ **Panorama**

Cinema 14:9 ⬅ **Cinema 16:9** ⬅ **Full**

Useful adjustment settings

EXAMPLE 👉

Input signal (640 × 480)

WIDE MODE
Normal
Cinema
Full
Dot by Dot

Input signal (1024 × 768)

WIDE MODE
Cinema
Full
Dot by Dot

WIDE mode (for PC input mode)

You can select the screen size.

🔖 **NOTE**

• Connect the PC before making adjustments. (See page 49.)
• Selectable screen size may vary with input signal type.

1 Press **WIDE**.
• The WIDE MODE menu displays.
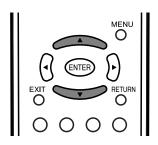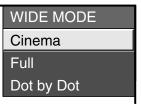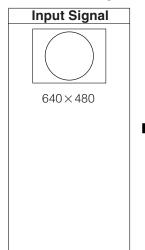
2 Press **WIDE** or ▲/▼ to select a desired item on the menu.

EXAMPLE 👉
Screen size images.

Input Signal	Normal	Cinema	Full	Dot by Dot
640 × 480	Keeps the original aspect ratio in a full screen display.	Keeps the original aspect ratio in a full screen display. The top and bottom of the image is slightly cropped.	An image fully fills the screen.	Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

Input Signal	Normal	Cinema	Full	Dot by Dot
1024 × 768		Keeps the original aspect ratio in a full screen display. The top and bottom of the image is slightly cropped.	An image fully fills the screen.	Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

Input signal (PC input mode only)

• Some input signals may have to be registered manually to display properly.
• The pairs of input signals (resolutions) in the list below are not distinguishable when received. In such case, you have to set the correct signal manually. After setting once, it will display when the same signal (resolution) is input again.

640×400	720×400
640×480	848×480
1024×768	1280×768

NOTE

• You can only select the "Input Signal" on the Setup menu when receiving one of the 6 input signals listed above.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".
• Setup menu displays.

3 Press ▲/▼ to select "Input Signal" and then press **ENTER**.

4 Press ▲/▼ to select the desired input signal on the display.

640 x 480
848 x 480
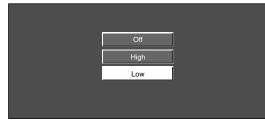
(Example)

DNR (Digital Noise Reduction)

Produces a clearer video image.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option".

3 Press ▲/▼ to select "DNR", and then press **ENTER**.
• Some items may be greyed out. They are not selectable.

4 Press ▲/▼ to select the desired level, and then press **ENTER**.

Off
High
Low

Quick Shoot

Improves LCD response when viewing fast-moving images. The effect is greater at low room temperatures (at or below 15°C/59°F).

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option".

3 Press ▲/▼ to select "Quick Shoot", and then press **ENTER**.

4 Press ◄/► to select "On", and then press **ENTER**.

On	Off

NOTE

• Quick Shoot may cause image noise. If this occurs turn the function "Off".

Useful adjustment settings

Rotate

You can set the orientation of the picture.

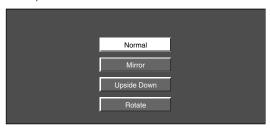**1** Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Rotate", and then press **ENTER**.

4 Press ▲/▼ to select the desired mode, and then press **ENTER**.

Normal
Mirror
Upside Down
Rotate

[Normal]: normal image.　　[Mirror]: mirror image.

[Upside Down]: upside
　　down image.

[Rotate]: rotated image.

Useful adjustment settings

Audio out

Allows you to select what controls the audio output.

🔖 **NOTE**

• This setting is available only in TV input mode.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option".

3 Press ▲/▼ to select "Audio Out", and then press **ENTER**.
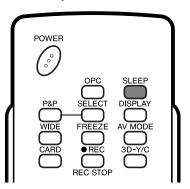
4 Press ◄/► to select "Fixed" or "Variable", and then press **ENTER**.

| Fixed | Variable |

Selected item	Description
Fixed	• Sound via speakers is adjusted with **VOL −/+** on the remote control unit or the Display. • Sound via the AV OUTPUT terminal is not adjustable and constantly outputs.
Variable	• Sound via the AV OUTPUT terminal is adjusted with **VOL −/+** on the remote control unit or the Display. • Sound via speakers is muted.

Sleep timer

Allows you to set a time when the TV automatically switches to standby.

```
POWER

OPC        SLEEP
P&P   SELECT   DISPLAY
WIDE   FREEZE   AV MODE
CARD   ● REC   3D-Y/C
       REC STOP
```

1 Press **SLEEP**.
• Remaining time displays when sleep timer has been set.

Sleep Timer: Remain 2 hr. 00 min.

2 Each time you press **SLEEP**, the remaining time switches as shown below.
• When the time has been set, countdown automatically starts.
• Five minutes before the preset of time expires, the remaining time displays each minute.

0 hr. 30 min. → 1 hr. 00 min. → 1 hr. 30 min.
↑   ↓
Off ← 2 hr. 30 min. ← 2 hr. 00 min.
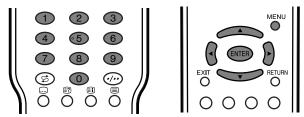
🔖 **NOTE**

• Select "Off" by pressing **SLEEP** to cancel the sleep timer.
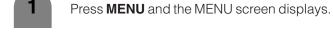
Password setting for child lock (for TV input mode)

Allows you to use a password to protect certain settings from being accidentally changed.
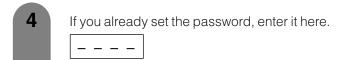

Setting a password (Changing a password)

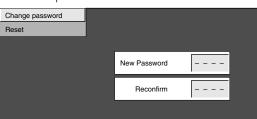Register a 4-digit password number to use the Child Lock function.

1 Press **MENU** and the MENU screen displays.

2 Press ◀/▶ to select "Setup".

3 Press ▲/▼ to select "Child Lock", and then press **ENTER**.

4 If you already set the password, enter it here.

    _ _ _ _

5 Press ▲/▼ to select "Change password", and then press **ENTER**.

| Change password |
| Reset |

| New Password | _ _ _ _ |
| Reconfirm | _ _ _ _ |

6 Enter the 4-digit number as a password using **0** – **9**.

| Change password |
| Reset |

| New Password | ■ _ _ _ |
| Reconfirm | _ _ _ _ |

7 Enter the same 4-digit number as in step 6 to confirm.
• "The new password is registered." displays.

📝 **NOTE**

• To view a locked channel (Lock setting in Programme Setup "Manual Adjust" is set to "On"), you must enter a password. (See page 28.) When you select a locked channel, a password prompt message pops up. Press **ENTER** to display the password input window.

Resetting the password

Allows you to reset your password.

1 Press **MENU** and the MENU screen displays.
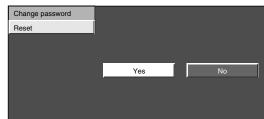
2 Press ◀/▶ to select "Setup".

3 Press ▲/▼ to select "Child Lock", and then press **ENTER**.

4 If you already set the password, enter it here.

    _ _ _ _

5 Press ▲/▼ to select "Reset", and then press **ENTER**.

6 Press ◀/▶ to select "Yes", and then press **ENTER**.

| Change password |
| Reset |

| Yes | No |

📝 **NOTE**
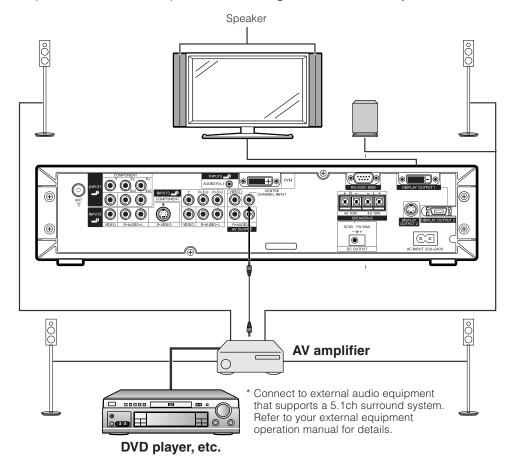
• **As a precautionary measure, make a note of your password and keep it in a familiar place. If you lose or forget your password, initialise the System to return all settings except for the TV channel settings to factory preset values. (See page 74.)**
• This function is available for TV input mode.

Centre Channel Input

You can use the speaker as the centre speaker when using a 5.1ch surround system.

Speaker

AV amplifier

* Connect to external audio equipment
  that supports a 5.1ch surround system.
  Refer to your external equipment
  operation manual for details.

DVD player, etc.

1 Press **MENU** and the MENU screen displays.

2 Press ◄/► to select "Option", and then press
ENTER.

3 Press ▲/▼ to select "Centre Channel Input",
and then press **ENTER**.

4 Press ◄/► to select "On" , and then press
ENTER.
• Only the sound from the Centre Channel Input
  terminal is output from the speaker.

| On | Off |
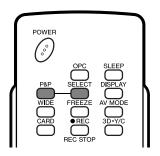
Useful features
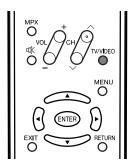
Dual screen functions

Allows you to display two pictures on the screen at one time.

Dual screen

You can display two pictures except when inputting from a INPUT 5 terminal and card.

1 Press **P&P**.
- Dual screen displays and a selected input source image displays.

2 Press **SELECT** to set either screen to be active.
- " ♪ " displays on the active screen, which has sound output.

3 Press **TV/VIDEO** to select another input source on the active screen.
- A selected image displays.
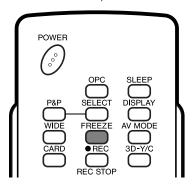
4 Press **P&P** to exit dual screen.
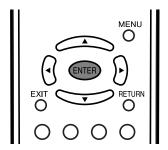
✎**NOTE**
- This function does not work under the following input conditions:
  ①INPUT 5 mode,
  ②CARD mode,
  ③Two pictures from the same source (e.g. INPUT 1 and INPUT 1),
  ④Two pictures with different vertical frequency (e.g. PAL and PAL-60),
  ⑤HDTV signal source (480P/1080i/720P) is input on the right side screen display.
- When this function is not available, "No dual screen display available." will display.

Picture and still image
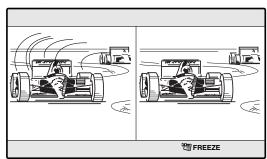
You can freeze a motion picture on the display.

1 Press **FREEZE**.
- A moving image displays on the left screen and a still image displays on the right screen. The still image is one frame captured from a moving image at the moment you press **FREEZE**.

2 Update the still image by pressing **ENTER**.
- Each time you press **ENTER**, the image on the right screen updates.

3 Press **FREEZE** to exit still image.

✎**NOTE**
- This function does not work in INPUT 5 and CARD mode.
- When this function is not available, "No still image display available." will display.
- Frozen image can be recorded on a PC card (see page 39).
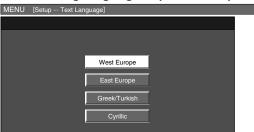- The still image automatically goes out after 30 minutes.

Teletext language setting

If Teletext information does not display correctly, perform the setting procedure below.
Select from among 4 kinds of language tables: West Europe, East Europe, Greek/Turkish, Cyrillic.
Each table is compatible with the Teletext languages listed below.

1 Press **MENU** and the TV MENU screen displays.

2 Press ◄/► to select "Setup".

3 Press ▲/▼ to select "Text Language", and then press **ENTER**.

4 Press ▲/▼ to select the receivable teletext broadcasting language in your country.

MENU   [Setup ⋯ Text Language]

West Europe

East Europe

Greek/Turkish

Cyrillic

- West Europe - English, French, Scandinavian, Czech, German, Spanish, Italian
- East Europe - Polish, French, Scandinavian, Czech, German, Slovenian/Croatian, Italian, Rumanian
- Greek/Turkish - English, French, Scandinavian, Turkish, German, Spanish, Italian, Greek
- Cyrillic - English, Russian, Estonian, Czech, German, Spanish, Ukrainian, Lettish

🖉 NOTE

- Teletext can display only when it is sent by a network. Not used to convert between languages.
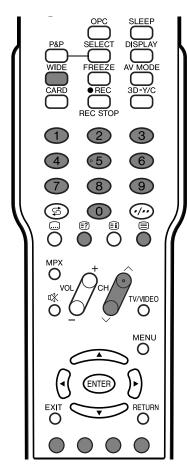
Teletext function

What is Teletext?

Teletext broadcasts pages of information and entertainment to specially equipped television sets. Your System receives Teletext signals broadcast by a TV network, and decodes them into graphical format for viewing. News, weather and sports information, stock exchange prices and programme previews are among the many services available.

Teletext mode

Teletext is turned on/off with 📧 on the remote control unit. You can operate your System in Teletext mode directly by inputting commands with the remote control unit.

Turning on and off Teletext

1 Select a TV channel or external input source providing the Teletext programme.
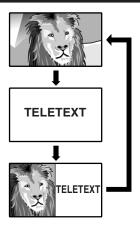
2 Press 📧 to display the Teletext.

3 Press 📧 again to display the Teletext on the right screen and normal image on the left screen.

• Each time you press 📧, the screen switches as shown upper right.
• If you select a programme with no Teletext signal, "No Teletext available." displays.
• The same message displays during dual screen or other modes if no Teletext signal is available.
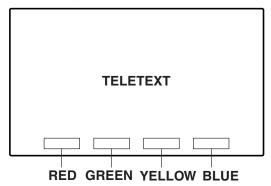
When viewing the Teletext information
• Press ∧ to increase the page number.
• Press ∨ to decrease the page number.

Button functions

Colour (RED/GREEN/YELLOW/BLUE):

You can select a group or block of pages displayed in the coloured brackets at the bottom of the screen by pressing the corresponding **Colour (RED/GREEN/YELLOW/BLUE)** on the remote control unit.
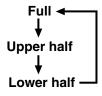

RED   GREEN   YELLOW   BLUE

0 – 9:

Directly select any page from 100 to 899 by using **0 – 9**.

WIDE:

Each time you press **WIDE**, the TELETEXT image switches as shown below.

Full
↓
Upper half
↓
Lower half

📧?:
To reveal hidden information such as an answer to a quiz, press 📧?.
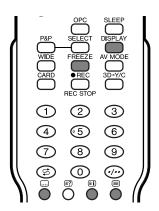• Press 📧? again to hide the information.

FREEZE:

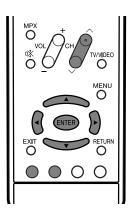To stop updating Teletext pages automatically, press **FREEZE**.
• Press **FREEZE** again to release the hold mode.

Displaying Subtitle

You can display several subtitles as they are transmitted.

1 Press 💬 to display the subtitle.
- Subtitle is updated by the information sent by the broadcasting station.
- To stop updating Subtitle automatically, press **FREEZE**.

2 Press 💬 to exit the subtitle screen.

📎 **NOTE**

- Subtitle will not be displayed when the service does not contain the subtitle information.

Displaying TOP Overview

When receiving TOP Teletext, you can read a TOP text overview.
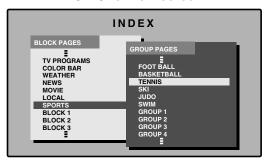
1 Press 🗐 to display Teletext.

2 Press ⧉i to display the TOP Overview as shown below.

TOP Overview screen

I N D E X

BLOCK PAGES	GROUP PAGES
TV PROGRAMS	FOOT BALL
COLOR BAR	BASKETBALL
WEATHER	TENNIS
NEWS	SKI
MOVIE	JUDO
LOCAL	SWIM
SPORTS	GROUP 1
BLOCK 1	GROUP 2
BLOCK 2	GROUP 3
BLOCK 3	GROUP 4

3 Select the desired block or group by using ▲/▼/◄/►.

4 Press **ENTER** to display the selected block or group pages.

5 Press ⧉i to exit the TOP Overview screen.

Time display

You can display the time information included in the Teletext broadcast.

1 Select a TV channel providing Teletext information.
(The time information is automatically captured.)

2 Press **DISPLAY**. The channel display will appear on the Display.

3 Press **DISPLAY** again within the three-second interval the channel display is on the screen.
Time information will display on the lower left of the screen for about three seconds.

4 Even when you change the TV channel, you can display the time information with steps 2 – 3 above.

📎 **NOTE**

- The time display cannot be stored once the power is turned off. When you turn on the power, perform steps 1 – 4 again.
- If acquired successfully the time information will appear in the upper-right corner of the screen by pressing **MENU**.

Appendix

Troubleshooting

Problem	Possible Solution
• No power.	• Make sure the Display and the AVC System are connected correctly. (See page 9.) • Check if you pressed **POWER** on the remote control unit. (See page 19.) If the indicator on the Display lights up red, press **POWER** on the display. • Is the AC cord disconnected? (See page 15.) • Has the main power been turned on? (See page 19.)
• Unit cannot be operated.	• External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the unit after first turning the power off the Display and the AVC System, or unplugging the AC cord and re-plugging it in after 1 or 2 minutes.
• Remote control unit does not operate.	• Are batteries inserted with polarity ($+$, $-$) aligned? (See page 14.) • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light illuminated to remote control sensor?
• Picture is cut off.	• Is the image position correct? (See page 51.) • Are screen mode adjustments such as picture size made correctly? (See pages 54 to 57.)
• Strange colour, light colour, or dark, or colour misalignment.	• Adjust the picture tone. (See pages 31 to 33 and 57.) • Is the room too bright? The picture may look dark in a room that is too bright. • Check the colour system setting. (See pages 27 and 53.) • Check the input signal setting. (See page 52.)
• Power is suddenly turned off.	• The unit's internal temperature has increased. Remove any objects blocking vent or clean. • Check the power control setting. (See page 35.) • Is sleep timer set? (See page 59.)
• No picture.	• Is connection to other components correct? (See pages 47 to 49.) • Has input signal setup been done correctly after connection? (See page 52.) • Is the correct input selected? (See page 52.) • Is a non-compatible signal being input? (See page 67.) • Is picture adjustment correct? (See pages 31 to 33.) • Is the antenna connected properly? (See page 15.) • Is "On" selected in "Audio Only"? (See page 51.)
• No sound.	• Is the volume too low? (See page 22.) • Is "Variable" selected in "Audio Out"? (See page 59.) • Is the speaker connected properly? • Is correct speaker output ("SPEAKER-A" or "SPEAKER-B") selected in "Speaker"? (See page 50.) • Is "On" selected in "Centre Channel Input"? (See page 61.) • Make sure that headphones are not connected. (See page 17.)

Cautions regarding use in high and low temperature environments

• When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
• Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
Storage temperature: –20°C to +60°C (–4°F to +140°F).

PC compatibility chart

PC/MAC	Resolution		Horizontal Frequency	Vertical Frequency	VESA Standard
PC	VGA	640 x 400	31.5 kHz	60 Hz	
			37.9 kHz	85 Hz	O
		720 x 400	31.5 kHz	60 Hz	
			37.9 kHz	85 Hz	O
		640 x 480	31.5 kHz	60 Hz	O
			37.9 kHz	72 Hz	O
			37.5 kHz	75 Hz	O
			43.3 kHz	85 Hz	O
	WVGA	848 x 480	31.5 kHz	60 Hz	
	SVGA	800 x 600	35.1 kHz	56 Hz	O
			37.9 kHz	60 Hz	O
			48.1 kHz	72 Hz	O
			46.9 kHz	75 Hz	O
			53.7 kHz	85 Hz	O
	XGA	1024 x 768	48.4 kHz	60 Hz	O
			56.5 kHz	70 Hz	O
			60.0 kHz	75 Hz	O
			68.7 kHz	85 Hz	O
	WXGA	1280 x 720	45.0 kHz	60 Hz	
		1280 x 768	48.1 kHz	60 Hz	
		*1366 x 768	48.4 kHz	60 Hz	
	SXGA	1280 x 1024	64.0 kHz	60 Hz	O
MAC13"	VGA	640 x 480	34.9 kHz	67 Hz	
MAC16"	SVGA	832 x 624	49.7 kHz	75 Hz	
MAC19"	XGA	1024 x 768	60.2 kHz	75 Hz	

*1366 x 768 (resolution) only applies to Analogue signal (not compatible with Digital signal).

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DDC is a registered trademark of Video Electronics Standards Association.
Power Management is a registered trademark of Sun Microsystems, Inc.
VGA and XGA are registered trademarks of International Business Machines Co., Inc.

RS-232C port specifications

PC Control of the System

• When a program is set, the display can be controlled from the PC using the RS-232C terminal.
  The input signal (PC/video) can be selected, the volume can be adjusted and various other adjustments and settings can be made, enabling automatic programmed playing.

• Attach an RS-232C cable cross-type (commercially available) to the supplied Din/D-sub RS-232C for the connections.

✎ **NOTE**

• This operation system should be used by a person who is accustomed to using PCs.

Communication conditions

Set the RS-232C communications settings on the PC to match the display's communications conditions. The display's communications settings are as follows:
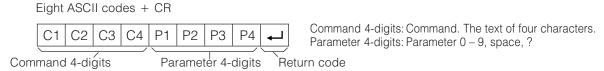
Baud rate:	9,600 bps
Data length:	8 bits
Parity bit:	None
Stop bit:	1 bit
Flow control:	None

Communication procedure

Send the control commands from the PC via the RS-232C connector.
The Display operates according to the received command and sends a response message to the PC.
Do not send multiple commands at the same time. Wait until the PC receives the OK response before sending the next command.

Command format

Eight ASCII codes + CR

C1	C2	C3	C4	P1	P2	P3	P4	↵

Command 4-digits   Parameter 4-digits   Return code

Command 4-digits: Command. The text of four characters.
Parameter 4-digits: Parameter 0 – 9, space, ?
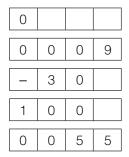
Parameter

Input the parameter values, aligning left, and fill with space (s) for the remainder. (Be sure that four values are input for the parameter.)
When the input parameter is not within an adjustable range, "ERR" returns. (Refer to "Response code format".)

0			

0	0	0	9

–	3	0	

1	0	0	

0	0	5	5

When "?" is input for some commands, the present setting value responds.

?			

?	?	?	?
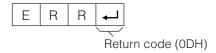
Appendix

Response code format

Normal response

O	K	↵

Return code (0DH)

Problem response (communication error or incorrect command)

E	R	R	↵

Return code (0DH)

Commands

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS
POWER SETTING	P	O	W	R	0	_	_	_	POWER OFF (STANDBY)
INPUT SELECTION A	I	T	G	D	_	_	_	_	INPUT SWITCHING (TOGGLE)
	I	T	V	D	_	_	_	_	TV (CHANNEL FIXED)
	I	A	V	D	*	_	_	_	INPUT1 – 5 (1 – 5)
	I	C	R	D	_	_	_	_	CARD
CHANNEL	D	C	C	H	*	*	_	_	TV DIRECT CHANNEL (1 – 99)
	C	H	U	P	_	_	_	_	CHANNEL UP
	C	H	D	W	_	_	_	_	CHANNEL DOWN
INPUT SELECTION B	I	N	P	1	0	_	_	_	INPUT1 (AUTO)
	I	N	P	1	1	_	_	_	INPUT1 (COMPONENT)
	I	N	P	1	2	_	_	_	INPUT1 (VIDEO)
	I	N	P	2	0	_	_	_	INPUT2 (AUTO)
	I	N	P	2	1	_	_	_	INPUT2 (S-VIDEO)
	I	N	P	2	2	_	_	_	INPUT2 (VIDEO)
	I	N	P	3	0	_	_	_	INPUT3 (AUTO)
	I	N	P	3	1	_	_	_	INPUT3 (COMPONENT)
	I	N	P	3	2	_	_	_	INPUT3 (VIDEO)
	I	N	P	4	0	_	_	_	INPUT4 (AUTO)
	I	N	P	4	1	_	_	_	INPUT4 (S-VIDEO)
	I	N	P	4	2	_	_	_	INPUT4 (VIDEO)
	I	N	P	5	0	_	_	_	PC DIGITAL
	I	N	P	5	1	_	_	_	PC ANALOGUE
	I	N	P	5	2	_	_	_	AV DIGITAL
	I	N	P	5	3	_	_	_	AV ANALOGUE
AV MODE SELECTION	A	V	M	D	0	_	_	_	TOGGLE
	A	V	M	D	1	_	_	_	STANDARD
	A	V	M	D	2	_	_	_	MOVIE
	A	V	M	D	3	_	_	_	GAME
	A	V	M	D	4	_	_	_	USER
	A	V	M	D	5	_	_	_	DYNAMIC
VOLUME	V	O	L	M	*	*	_	_	VOLUME (0 – 60)

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS
POSITION	H	P	O	S	*	*	*	_	H-POSITION (AV) (− 10 – + 10)
	H	P	O	S	*	*	*	_	H-POSITION (PC) (0 – 180)
	V	P	O	S	*	*	*	_	V-POSITION (AV) (− 20 – + 20)
	V	P	O	S	*	*	*	_	V-POSITION (PC) (0 – 100)
	C	L	C	K	*	*	*	_	CLOCK (0 – 180)
	P	H	S	E	*	*	*	_	PHASE (0 – 40)
WIDE MODE	W	I	D	E	0	_	_	_	TOGGLE (AV)
	W	I	D	E	1	_	_	_	NORMAL (AV)
	W	I	D	E	2	_	_	_	ZOOM 14:9 (AV)
	W	I	D	E	3	_	_	_	PANORAMA (AV)
	W	I	D	E	4	_	_	_	FULL (AV)
	W	I	D	E	5	_	_	_	CINEMA 16:9 (AV)
	W	I	D	E	6	_	_	_	CINEMA 14:9 (AV)
	W	I	D	E	7	_	_	_	NORMAL (PC)
	W	I	D	E	8	_	_	_	CINEMA (PC)
	W	I	D	E	9	_	_	_	FULL (PC)
	W	I	D	E	1	0	_	_	DOT BY DOT (PC)
MUTE	M	U	T	E	0	_	_	_	TOGGLE
	M	U	T	E	1	_	_	_	MUTE
	M	U	T	E	2	_	_	_	MUTE OFF
DOLBY VIRTUAL	A	C	D	V	0	_	_	_	TOGGLE
	A	C	D	V	1	_	_	_	ON
	A	C	D	V	2	_	_	_	OFF
DUAL SCREEN	T	W	I	N	0	_	_	_	DUAL SCREEN OFF
	T	W	I	N	1	_	_	_	DUAL SCREEN ON
AUDIO CHANGE	A	C	H	A	_	_	_	_	TOGGLE
SLEEP TIMER	O	F	T	M	0	_	_	_	OFF
	O	F	T	M	1	_	_	_	SLEEP TIMER 30 MIN
	O	F	T	M	2	_	_	_	SLEEP TIMER 1 HOUR
	O	F	T	M	3	_	_	_	SLEEP TIMER 1 HOUR 30 MIN
	O	F	T	M	4	_	_	_	SLEEP TIMER 2 HOUR
	O	F	T	M	5	_	_	_	SLEEP TIMER 2 HOUR 30 MIN
TEXT	T	E	X	T	0	_	_	_	TEXT OFF
	T	E	X	T	1	_	_	_	TEXT ON (TOGGLE)
	D	C	P	G	*	*	*	_	DIRECT PAGE JUMP (100 – 899)

✎ **NOTE**

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.

Appendix

Specifications

Item	32″ LCD COLOUR TV, Model:LC-32G2X (Display) TU-32GAX (AVC System)	37″ LCD COLOUR TV, Model:LC-37G2X (Display) TU-37GAX (AVC System)
LCD panel	32″ Advanced Super View & BLACK TFT LCD	37″ Advanced Super View & BLACK TFT LCD
Number of dots	3,147,264 dots (1366 × 768 × 3 dots)	
Video Colour System	PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60	

TV Function	TV-Standard (CCIR)		PAL: B/G, D/K, I, PAL-60 SECAM: B/G, D/K, K/K$_1$ NTSC: M
	Receiving Channel	VHF/UHF	44.25-863.25 MHz
		CATV	Hyper-band, S1–S41ch
	TV-Tuning System		Auto Preset 99 ch, Auto Label, Auto Sort
	STEREO/BILINGUAL		NICAM/A2

Brightness				450 cd/m^2
Backlight life				60,000 hours (at Backlight Standard position)
Viewing angles				H : 170° V : 170°
Audio amplifier				10W × 2
Speakers				Ø 8 cm 2pcs, Ø 2.5 cm 2pcs
Terminals	AVC System	Rear	ANTENNA IN	UHF/VHF 75 Ω Din type
			INPUT 1	AV in, COMPONENT VIDEO in
			INPUT 2	AV in, S-VIDEO in
			INPUT 3	AV in, COMPONENT VIDEO in
			INPUT 5	Ø 3.5 mm jack (Audio input), DVI-I (DVI-I input)
			AV OUTPUT	RCA pin (AV output [Audio: Variable/Fixed])
			DC OUTPUT	DC9V 7W MAX
			SPEAKER-B	External speaker output terminal (L and R)
			CENTRE CHANNEL INPUT	RCA pin
			RS-232C	D-sub 9pin male connector
		Front	INPUT 4	AV in, S-VIDEO in
			Headphones	Ø 3.5mm jack (Audio output)
			PC Card slot	PC Card Type II (PC Card Adapter)

OSD language		English/Chinese/Arabic	
Power Requirement		AC 220–240 V, 50 Hz	
Power Consumption	AVC System	36 W (0.6 W Standby)	
	Display	117 W (0.3 W Standby) (Method IEC60107)	157 W (0.3 W Standby) (Method IEC60107)
Weight	AVC System	6.6 kg (w/o stand), 6.8 kg (with stand)	
	Display	13 kg (Display only), 17.5 kg (with Display and speakers), 22 kg (with Display, speakers and stand)	14.5 kg (Display only), 19.5 kg (with Display and speakers), 24 kg (with Display, speakers and stand)
Accessories		Operation manual, Remote control unit (×1), System cable (×1), AC cord (×2), "AAA" size battery (×2), AVC system stand unit (×1), Cable clamp (×1), Antenna cable (×1)	Operation manual, Remote control unit (×1), System cable (×1), AC cord (×2), "AAA" size battery (×2), AVC system stand unit (×1), Cable clamp (×1), Antenna cable (×1), Speaker unit (×1), Bracket unit (×1), Screwdriver (×1)

- As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Optional accessories

The listed optional accessories are available for the LCD colour TV. Please purchase them at your nearest shop.
- Additional optional accessories may be available in near future. When purchasing, please read the newest catalogue for compatibility and check the availability.
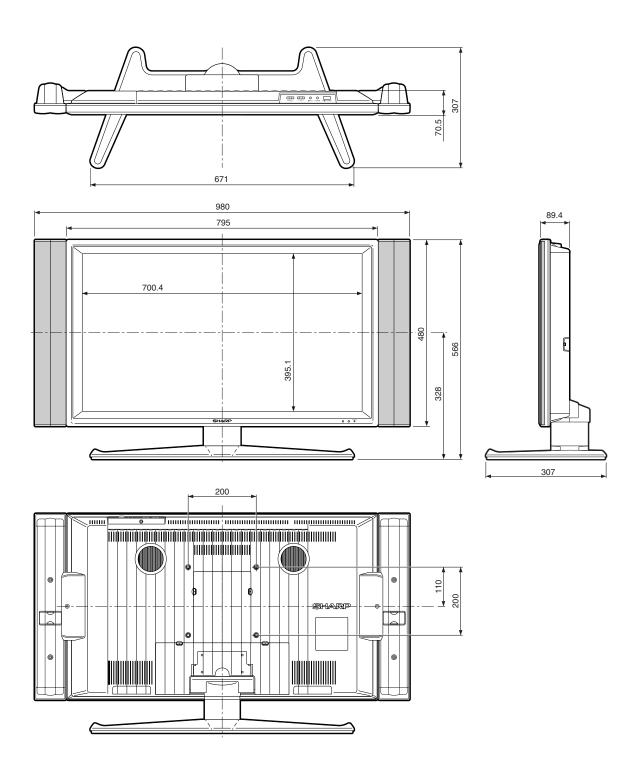
No.	Part name	Part number
1	Wall mount bracket	AN-37AG2
2	System cable (7 meters)	AN-07SC2

Dimensional drawings

Unit: mm

Dimensional drawings

Unit: mm

Dimensional drawings

Unit: mm

365

430

95

49

220

303
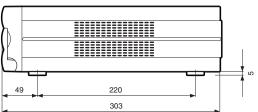
5
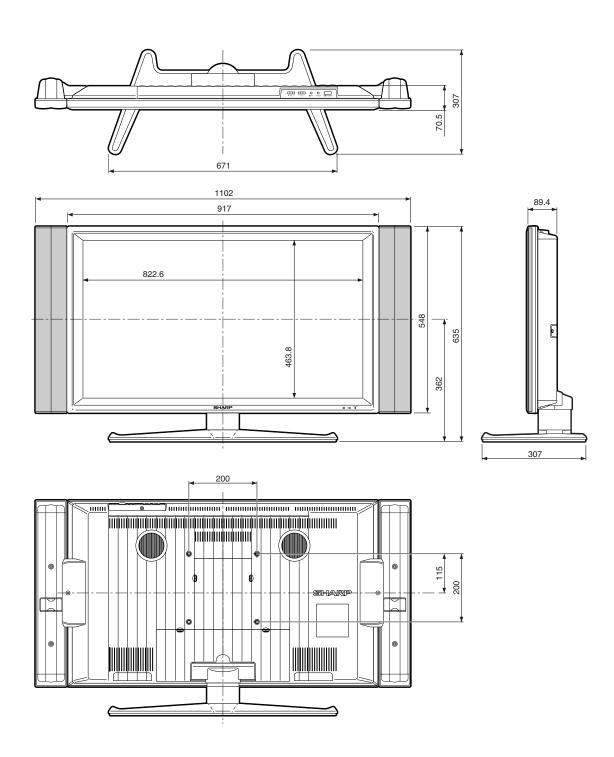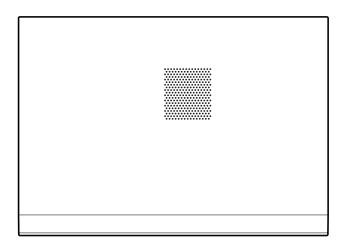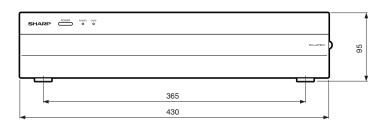
HOW TO SET THE FACTORY PRESETS

Turn off the Display by pressing **MAIN POWER**.
Press and hold down **RESET** on the AVC System and press **MAIN POWER** on the Display to turn on the System.
All setting items (except TV channel) return to the factory presetting.

✎ **NOTE**

• Running the factory presetting operation also clears the password.

You can run the Auto Installation again by using the following steps.

1 Turn on the power of the Display and the AVC System.

2 Press **MENU**. (Make sure the menu screen displays.)

3 Press ◄/► to select "Setup".

4 Press ▲/▼ to select "Auto Installation", and then press **ENTER**.

5 Press ◄/► to select "Yes", and then press **ENTER**.

The password is ⬚⬚⬚⬚ .

✎ **NOTE**

• As a precautionary measure, make a note of your password above, scissor it from this manual, and keep it in a familiar place.

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IMPORTANT
DO NOT RETURN THIS CARD TO SHARP

For your reference, please enter the particulars of your purchase below and retain, with your purchase documentation.

Model No. _____

Serial No. _____

Date of Purchase _____

Retailer _____

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59 Hugo Johnston Drive
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